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SUBCHAPTER B—FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969, AS AMENDED

PART 718—STANDARDS FOR DETERMINING COAL MINERS' TOTAL DISABILITY OR DEATH DUE TO PNEUMOCONIOSIS

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AUTHORITY: 5 U.S.C. 301, Reorganization Plan No. 6 of 1950, 15 FR 3174, 30 U.S.C. 901 *et seq.*, 902(f), 925, 932, 934, 936, 945; 33 U.S.C. 901 *et seq.*, Secretary's Order 7–87, 52 FR 48466, Employment Standards Order No. 90–02.

SOURCE: 45 FR 13678, Feb. 29, 1980, unless otherwise noted.

Subpart A—General

SOURCE: 65 FR 80045, Dec. 20, 2000, unless otherwise noted.

§ 718.1 Statutory provisions.

(a) Under title IV of the Federal Coal Mine Health and Safety Act of 1969, as amended by the Black Lung Benefits Act of 1972, the Federal Mine Safety and Health Amendments Act of 1977, the Black Lung Benefits Reform Act of 1977, the Black Lung Benefits Revenue Act of 1977, the Black Lung Benefits Amendments of 1981, and the Black Lung Benefits Revenue Act of 1981, benefits are provided to miners who are totally disabled due to pneumoconiosis and to certain survivors of a miner who died due to or while totally or partially disabled by pneumoconiosis. However, unless the miner was found entitled to benefits as a result of a claim filed prior to January 1, 1982, benefits are payable on survivors' claims filed on or after January 1, 1982, only when the miner's death was due to pneumoconiosis, except where the survivor's entitlement is established pursuant to § 718.306 on a claim filed prior to June 30, 1982. Before the enactment of the Black Lung Benefits Reform Act of 1977, the authority for establishing standards of eligibility for miners and their survivors was placed with the Secretary of Health, Education, and Welfare. These standards were set forth by the Secretary of Health, Education, and Welfare in subpart D of part 410 of this title, and adopted by the Secretary of Labor for application to all claims filed with the Secretary of Labor (see 20 CFR 718.2, contained in the 20 CFR, Part 500 to end, edition, revised as of April 1, 1979.) Amendments made to

section 402(f) of the Act by the Black Lung Benefits Reform Act of 1977 authorize the Secretary of Labor to establish criteria for determining total or partial disability or death due to pneumoconiosis to be applied in the processing and adjudication of claims filed under part C of title IV of the Act. Section 402(f) of the Act further authorizes the Secretary of Labor, in consultation with the National Institute for Occupational Safety and Health, to establish criteria for all appropriate medical tests administered in connection with a claim for benefits. Section 413(b) of the Act authorizes the Secretary of Labor to establish criteria for the techniques to be used to take chest roentgenograms (X-rays) in connection with a claim for benefits under the Act.

(b) The Black Lung Benefits Reform Act of 1977 provided that with respect to a claim filed prior to April 1, 1980, or reviewed under section 435 of the Act, the standards to be applied in the adjudication of such claim shall not be more restrictive than the criteria applicable to a claim filed on June 30, 1973, with the Social Security Administration, whether or not the final disposition of the claim occurs after March 31, 1980. All such claims shall be reviewed under the criteria set forth in part 727 of this title (see 20 CFR 725.4(d)).

§718.2 Applicability of this part.

With the exception of the second sentence of §718.204(a), this part is applicable to the adjudication of all claims filed after March 31, 1980, and considered by the Secretary of Labor under section 422 of the Act and part 725 of this subchapter. The second sentence of §718.204(a) is applicable to the adjudication of all claims filed after January 19, 2001. If a claim subject to the provisions of section 435 of the Act and subpart C of part 727 of this subchapter (see 20 CFR 725.4(d)) cannot be approved under that subpart, such claim may be approved, if appropriate, under the provisions contained in this part. The provisions of this part shall, to the extent appropriate, be construed together in the adjudication of all claims.

[68 FR 69935, Dec. 15, 2003]

§718.3 Scope and intent of this part.

(a) This part sets forth the standards to be applied in determining whether a coal miner is or was totally, or in the case of a claim subject to §718.306 partially, disabled due to pneumoconiosis or died due to pneumoconiosis. It also specifies the procedures and requirements to be followed in conducting medical examinations and in administering various tests relevant to such determinations.

(b) This part is designed to interpret the presumptions contained in section 411(c) of the Act, evidentiary standards and criteria contained in section 413(b) of the Act and definitional requirements and standards contained in section 402(f) of the Act within a coherent framework for the adjudication of claims. It is intended that these enumerated provisions of the Act be construed as provided in this part.

§718.4 Definitions and use of terms.

Except as is otherwise provided by this part, the definitions and usages of terms contained in §725.101 of subpart A of part 725 of this title shall be applicable to this part.

Subpart B—Criteria for the Development of Medical Evidence

SOURCE: 65 FR 80045, Dec. 20, 2000, unless otherwise noted.

§718.101 General.

(a) The Office of Workers' Compensation Programs (hereinafter OWCP or the Office) shall develop the medical evidence necessary for a determination with respect to each claimant's entitlement to benefits. Each miner who files a claim for benefits under the Act shall be provided an opportunity to substantiate his or her claim by means of a complete pulmonary evaluation including, but not limited to, a chest roentgenogram (X-ray), physical examination, pulmonary function tests and a blood-gas study.

(b) The standards for the administration of clinical tests and examinations contained in this subpart shall apply to all evidence developed by any party after January 19, 2001 in connection with a claim governed by this part (see

§§ 725.406(b), 725.414(a), 725.456(d)). These standards shall also apply to claims governed by part 727 (see 20 CFR 725.4(d)), but only for clinical tests or examinations conducted after January 19, 2001. Any clinical test or examination subject to these standards shall be in substantial compliance with the applicable standard in order to constitute evidence of the fact for which it is proffered. Unless otherwise provided, any evidence which is not in substantial compliance with the applicable standard is insufficient to establish the fact for which it is proffered.

§ 718.102 Chest roentgenograms (X-rays).

(a) A chest roentgenogram (X-ray) shall be of suitable quality for proper classification of pneumoconiosis and shall conform to the standards for administration and interpretation of chest X-rays as described in Appendix A.

(b) A chest X-ray to establish the existence of pneumoconiosis shall be classified as Category 1, 2, 3, A, B, or C, according to the International Labour Organization Union Internationale Contra Cancer/Cincinnati (1971) International Classification of Radiographs of the Pneumoconioses (ILO-U/C 1971), or subsequent revisions thereof. This document is available from the Division of Coal Mine Workers' Compensation in the U.S. Department of Labor, Washington, D.C., telephone (202) 693–0046, and from the National Institute for Occupational Safety and Health (NIOSH), located in Cincinnati, Ohio, telephone (513) 841–4428) and Morgantown, West Virginia, telephone (304) 285–5749. A chest X-ray classified as Category Z under the ILO Classification (1958) or Short Form (1968) shall be reclassified as Category 0 or Category 1 as appropriate, and only the latter accepted as evidence of pneumoconiosis. A chest X-ray classified under any of the foregoing classifications as Category 0, including sub-categories 0—, 0/0, or 0/1 under the UICC/Cincinnati (1968) Classification or the ILO-U/C 1971 Classification does not constitute evidence of pneumoconiosis.

(c) A description and interpretation of the findings in terms of the classifications described in paragraph (b) of this section shall be submitted by the examining physician along with the film. The report shall specify the name and qualifications of the person who took the film and the name and qualifications of the physician interpreting the film. If the physician interpreting the film is a Board-certified or Board-eligible radiologist or a certified ''B'' reader (see § 718.202), he or she shall so indicate. The report shall further specify that the film was interpreted in compliance with this paragraph.

(d) The original film on which the X-ray report is based shall be supplied to the Office, unless prohibited by law, in which event the report shall be considered as evidence only if the original film is otherwise available to the Office and other parties. Where the chest X-ray of a deceased miner has been lost, destroyed or is otherwise unavailable, a report of a chest X-ray submitted by any party shall be considered in connection with the claim.

(e) Except as provided in this paragraph, no chest X-ray shall constitute evidence of the presence or absence of pneumoconiosis unless it is conducted and reported in accordance with the requirements of this section and Appendix A. In the absence of evidence to the contrary, compliance with the requirements of Appendix A shall be presumed. In the case of a deceased miner where the only available X-ray does not substantially comply with paragraphs (a) through (d), such X-ray may form the basis for a finding of the presence or absence of pneumoconiosis if it is of sufficient quality for determining the presence or absence of pneumoconiosis and such X-ray was interpreted by a Board-certified or Board-eligible radiologist or a certified ''B'' reader (see § 718.202).

§ 718.103 Pulmonary function tests.

(a) Any report of pulmonary function tests submitted in connection with a claim for benefits shall record the results of flow versus volume (flow-volume loop). The instrument shall simultaneously provide records of volume versus time (spirometric tracing). The report shall provide the results of the forced expiratory volume in one second (FEV1) and the forced vital capacity (FVC). The report shall also provide

the FEV1/FVC ratio, expressed as a percentage. If the maximum voluntary ventilation (MVV) is reported, the results of such test shall be obtained independently rather than calculated from the results of the FEV1.

(b) All pulmonary function test results submitted in connection with a claim for benefits shall be accompanied by three tracings of the flow versus volume and the electronically derived volume versus time tracings. If the MVV is reported, two tracings of the MVV whose values are within 10% of each other shall be sufficient. Pulmonary function test results developed in connection with a claim for benefits shall also include a statement signed by the physician or technician conducting the test setting forth the following:

(1) Date and time of test;

(2) Name, DOL claim number, age, height, and weight of claimant at the time of the test;

(3) Name of technician;

(4) Name and signature of physician supervising the test;

(5) Claimant's ability to understand the instructions, ability to follow directions and degree of cooperation in performing the tests. If the claimant is unable to complete the test, the person executing the report shall set forth the reasons for such failure;

(6) Paper speed of the instrument used;

(7) Name of the instrument used;

(8) Whether a bronchodilator was administered. If a bronchodilator is administered, the physician's report must detail values obtained both before and after administration of the bronchodilator and explain the significance of the results obtained; and

(9) That the requirements of paragraphs (b) and (c) of this section have been complied with.

(c) Except as provided in this paragraph, no results of a pulmonary function study shall constitute evidence of the presence or absence of a respiratory or pulmonary impairment unless it is conducted and reported in accordance with the requirements of this section and Appendix B to this part. In the absence of evidence to the contrary, compliance with the requirements of Appendix B shall be presumed. In the case of a deceased miner, where no pulmonary function tests are in substantial compliance with paragraphs (a) and (b) and Appendix B, noncomplying tests may form the basis for a finding if, in the opinion of the adjudication officer, the tests demonstrate technically valid results obtained with good cooperation of the miner.

§ 718.104 Report of physical examinations.

(a) A report of any physical examination conducted in connection with a claim shall be prepared on a medical report form supplied by the Office or in a manner containing substantially the same information. Any such report shall include the following information and test results:

(1) The miner's medical and employment history;

(2) All manifestations of chronic respiratory disease;

(3) Any pertinent findings not specifically listed on the form;

(4) If heart disease secondary to lung disease is found, all symptoms and significant findings;

(5) The results of a chest X-ray conducted and interpreted as required by § 718.102; and

(6) The results of a pulmonary function test conducted and reported as required by § 718.103. If the miner is physically unable to perform a pulmonary function test or if the test is medically contraindicated, in the absence of evidence establishing total disability pursuant to § 718.304, the report must be based on other medically acceptable clinical and laboratory diagnostic techniques, such as a blood gas study.

(b) In addition to the requirements of paragraph (a), a report of physical examination may be based on any other procedures such as electrocardiogram, blood-gas studies conducted and reported as required by § 718.105, and other blood analyses which, in the physician's opinion, aid in his or her evaluation of the miner.

(c) In the case of a deceased miner, where no report is in substantial compliance with paragraphs (a) and (b), a report prepared by a physician who is unavailable may nevertheless form the basis for a finding if, in the opinion of

the adjudication officer, it is accompanied by sufficient indicia of reliability in light of all relevant evidence.

(d) *Treating physician.* In weighing the medical evidence of record relevant to whether the miner suffers, or suffered, from pneumoconiosis, whether the pneumoconiosis arose out of coal mine employment, and whether the miner is, or was, totally disabled by pneumoconiosis or died due to pneumoconiosis, the adjudication officer must give consideration to the relationship between the miner and any treating physician whose report is admitted into the record. Specifically, the adjudication officer shall take into consideration the following factors in weighing the opinion of the miner's treating physician:

(1) *Nature of relationship.* The opinion of a physician who has treated the miner for respiratory or pulmonary conditions is entitled to more weight than a physician who has treated the miner for non-respiratory conditions;

(2) *Duration of relationship.* The length of the treatment relationship demonstrates whether the physician has observed the miner long enough to obtain a superior understanding of his or her condition;

(3) *Frequency of treatment.* The frequency of physician-patient visits demonstrates whether the physician has observed the miner often enough to obtain a superior understanding of his or her condition; and

(4) *Extent of treatment.* The types of testing and examinations conducted during the treatment relationship demonstrate whether the physician has obtained superior and relevant information concerning the miner's condition.

(5) In the absence of contrary probative evidence, the adjudication officer shall accept the statement of a physician with regard to the factors listed in paragraphs (d)(1) through (4) of this section. In appropriate cases, the relationship between the miner and his treating physician may constitute substantial evidence in support of the adjudication officer's decision to give that physician's opinion controlling weight, provided that the weight given to the opinion of a miner's treating physician shall also be based on the credibility of the physician's opinion in light of its reasoning and documentation, other relevant evidence and the record as a whole.

§ 718.105 Arterial blood-gas studies.

(a) Blood-gas studies are performed to detect an impairment in the process of alveolar gas exchange. This defect will manifest itself primarily as a fall in arterial oxygen tension either at rest or during exercise. No blood-gas study shall be performed if medically contraindicated.

(b) A blood-gas study shall initially be administered at rest and in a sitting position. If the results of the blood-gas test at rest do not satisfy the requirements of Appendix C to this part, an exercise blood-gas test shall be offered to the miner unless medically contraindicated. If an exercise blood-gas test is administered, blood shall be drawn during exercise.

(c) Any report of a blood-gas study submitted in connection with a claim shall specify:

(1) Date and time of test;

(2) Altitude and barometric pressure at which the test was conducted;

(3) Name and DOL claim number of the claimant;

(4) Name of technician;

(5) Name and signature of physician supervising the study;

(6) The recorded values for PC02, P02, and PH, which have been collected simultaneously (specify values at rest and, if performed, during exercise);

(7) Duration and type of exercise;

(8) Pulse rate at the time the blood sample was drawn;

(9) Time between drawing of sample and analysis of sample; and

(10) Whether equipment was calibrated before and after each test.

(d) If one or more blood-gas studies producing results which meet the appropriate table in Appendix C is administered during a hospitalization which ends in the miner's death, then any such study must be accompanied by a physician's report establishing that the test results were produced by a chronic respiratory or pulmonary condition. Failure to produce such a report will prevent reliance on the blood-gas study as evidence that the miner was totally disabled at death. (e) In the case of a deceased miner, where no blood gas

tests are in substantial compliance with paragraphs (a), (b), and (c), noncomplying tests may form the basis for a finding if, in the opinion of the adjudication officer, the only available tests demonstrate technically valid results. This provision shall not excuse compliance with the requirements in paragraph (d) for any blood gas study administered during a hospitalization which ends in the miner's death.

§ 718.106 Autopsy; biopsy.

(a) A report of an autopsy or biopsy submitted in connection with a claim shall include a detailed gross macroscopic and microscopic description of the lungs or visualized portion of a lung. If a surgical procedure has been performed to obtain a portion of a lung, the evidence shall include a copy of the surgical note and the pathology report of the gross and microscopic examination of the surgical specimen. If an autopsy has been performed, a complete copy of the autopsy report shall be submitted to the Office.

(b) In the case of a miner who died prior to March 31, 1980, an autopsy or biopsy report shall be considered even when the report does not substantially comply with the requirements of this section. A noncomplying report concerning a miner who died prior to March 31, 1980, shall be accorded the appropriate weight in light of all relevant evidence.

(c) A negative biopsy is not conclusive evidence that the miner does not have pneumoconiosis. However, where positive findings are obtained on biopsy, the results will constitute evidence of the presence of pneumoconiosis.

§ 718.107 Other medical evidence.

(a) The results of any medically acceptable test or procedure reported by a physician and not addressed in this subpart, which tends to demonstrate the presence or absence of pneumoconiosis, the sequelae of pneumoconiosis or a respiratory or pulmonary impairment, may be submitted in connection with a claim and shall be given appropriate consideration.

(b) The party submitting the test or procedure pursuant to this section bears the burden to demonstrate that the test or procedure is medically acceptable and relevant to establishing or refuting a claimant's entitlement to benefits.

Subpart C—Determining Entitlement to Benefits

SOURCE: 65 FR 80045, Dec. 20, 2000, unless otherwise noted.

§ 718.201 Definition of pneumoconiosis.

(a) For the purpose of the Act, ''pneumoconiosis'' means a chronic dust disease of the lung and its sequelae, including respiratory and pulmonary impairments, arising out of coal mine employment. This definition includes both medical, or ''clinical'', pneumoconiosis and statutory, or ''legal'', pneumoconiosis.

(1) *Clinical Pneumoconiosis.* ''Clinical pneumoconiosis'' consists of those diseases recognized by the medical community as pneumoconioses, *i.e.*, the conditions characterized by permanent deposition of substantial amounts of particulate matter in the lungs and the fibrotic reaction of the lung tissue to that deposition caused by dust exposure in coal mine employment. This definition includes, but is not limited to, coal workers' pneumoconiosis, anthracosilicosis, anthracosis, anthrosilicosis, massive pulmonary fibrosis, silicosis or silicotuberculosis, arising out of coal mine employment.

(2) *Legal Pneumoconiosis.* ''Legal pneumoconiosis'' includes any chronic lung disease or impairment and its sequelae arising out of coal mine employment. This definition includes, but is not limited to, any chronic restrictive or obstructive pulmonary disease arising out of coal mine employment.

(b) For purposes of this section, a disease ''arising out of coal mine employment'' includes any chronic pulmonary disease or respiratory or pulmonary impairment significantly related to, or substantially aggravated by, dust exposure in coal mine employment.

(c) For purposes of this definition, ''pneumoconiosis'' is recognized as a latent and progressive disease which may first become detectable only after the cessation of coal mine dust exposure.

§ 718.202 Determining the existence of pneumoconiosis.

(a) A finding of the existence of pneumoconiosis may be made as follows:

(1) A chest X-ray conducted and classified in accordance with § 718.102 may form the basis for a finding of the existence of pneumoconiosis. Except as otherwise provided in this section, where two or more X-ray reports are in conflict, in evaluating such X-ray reports consideration shall be given to the radiological qualifications of the physicians interpreting such X-rays.

(i) In all claims filed before January 1, 1982, where there is other evidence of pulmonary or respiratory impairment, a Board-certified or Board-eligible radiologist's interpretation of a chest X-ray shall be accepted by the Office if the X-ray is in compliance with the requirements of § 718.102 and if such X-ray has been taken by a radiologist or qualified radiologic technologist or technician and there is no evidence that the claim has been fraudulently represented. However, these limitations shall not apply to any claim filed on or after January 1, 1982.

(ii) The following definitions shall apply when making a finding in accordance with this paragraph.

(A) The term *other evidence* means medical tests such as blood-gas studies, pulmonary function studies or physical examinations or medical histories which establish the presence of a chronic pulmonary, respiratory or cardio-pulmonary condition, and in the case of a deceased miner, in the absence of medical evidence to the contrary, affidavits of persons with knowledge of the miner's physical condition.

(B) *Pulmonary or respiratory impairment* means inability of the human respiratory apparatus to perform in a normal manner one or more of the three components of respiration, namely, ventilation, perfusion and diffusion.

(C) *Board-certified* means certification in radiology or diagnostic roentgenology by the American Board of Radiology, Inc. or the American Osteopathic Association.

(D) *Board-eligible* means the successful completion of a formal accredited residency program in radiology or diagnostic roentgenology.

(E) *Certified 'B' reader* or *'B' reader* means a physician who has demonstrated proficiency in evaluating chest roentgenograms for roentgenographic quality and in the use of the ILO-U/C classification for interpreting chest roentgenograms for pneumoconiosis and other diseases by taking and passing a specially designed proficiency examination given on behalf of or by the Appalachian Laboratory for Occupational Safety and Health. See 42 CFR 37.51(b)(2).

(F) *Qualified radiologic technologist or technician* means an individual who is either certified as a registered technologist by the American Registry of Radiologic Technologists or licensed as a radiologic technologist by a state licensing board.

(2) A biopsy or autopsy conducted and reported in compliance with § 718.106 may be the basis for a finding of the existence of pneumoconiosis. A finding in an autopsy or biopsy of anthracotic pigmentation, however, shall not be sufficient, by itself, to establish the existence of pneumoconiosis. A report of autopsy shall be accepted unless there is evidence that the report is not accurate or that the claim has been fraudulently represented.

(3) If the presumptions described in §§ 718.304, 718.305 or § 718.306 are applicable, it shall be presumed that the miner is or was suffering from pneumoconiosis.

(4) A determination of the existence of pneumoconiosis may also be made if a physician, exercising sound medical judgment, notwithstanding a negative X-ray, finds that the miner suffers or suffered from pneumoconiosis as defined in § 718.201. Any such finding shall be based on objective medical evidence such as blood-gas studies, electrocardiograms, pulmonary function studies, physical performance tests, physical examination, and medical and work histories. Such a finding shall be supported by a reasoned medical opinion.

(b) No claim for benefits shall be denied solely on the basis of a negative chest X-ray.

(c) A determination of the existence of pneumoconiosis shall not be made solely on the basis of a living miner's

statements or testimony. Nor shall such a determination be made upon a claim involving a deceased miner filed on or after January 1, 1982, solely based upon the affidavit(s) (or equivalent sworn testimony) of the claimant and/or his or her dependents who would be eligible for augmentation of the claimant's benefits if the claim were approved.

§ 718.203 Establishing relationship of pneumoconiosis to coal mine employment.

(a) In order for a claimant to be found eligible for benefits under the Act, it must be determined that the miner's pneumoconiosis arose at least in part out of coal mine employment. The provisions in this section set forth the criteria to be applied in making such a determination.

(b) If a miner who is suffering or suffered from pneumoconiosis was employed for ten years or more in one or more coal mines, there shall be a rebuttable presumption that the pneumoconiosis arose out of such employment.

(c) If a miner who is suffering or suffered from pneumoconiosis was employed less than ten years in the nation's coal mines, it shall be determined that such pneumoconiosis arose out of that employment only if competent evidence establishes such a relationship.

§ 718.204 Total disability and disability causation defined; criteria for determining total disability and total disability due to pneumoconiosis.

(a) *General.* Benefits are provided under the Act for or on behalf of miners who are totally disabled due to pneumoconiosis, or who were totally disabled due to pneumoconiosis at the time of death. For purposes of this section, any nonpulmonary or nonrespiratory condition or disease, which causes an independent disability unrelated to the miner's pulmonary or respiratory disability, shall not be considered in determining whether a miner is totally disabled due to pneumoconiosis. If, however, a nonpulmonary or nonrespiratory condition or disease causes a chronic respiratory or pulmonary impairment, that condition or disease shall be considered in determining whether the miner is or was totally disabled due to pneumoconiosis.

(b)(1) *Total disability defined.* A miner shall be considered totally disabled if the irrebuttable presumption described in § 718.304 applies. If that presumption does not apply, a miner shall be considered totally disabled if the miner has a pulmonary or respiratory impairment which, standing alone, prevents or prevented the miner:

(i) From performing his or her usual coal mine work; and

(ii) From engaging in gainful employment in the immediate area of his or her residence requiring the skills or abilities comparable to those of any employment in a mine or mines in which he or she previously engaged with some regularity over a substantial period of time.

(2) *Medical criteria.* In the absence of contrary probative evidence, evidence which meets the standards of either paragraphs (b)(2)(i), (ii), (iii), or (iv) of this section shall establish a miner's total disability:

(i) Pulmonary function tests showing values equal to or less than those listed in Table B1 (Males) or Table B2 (Females) in Appendix B to this part for an individual of the miner's age, sex, and height for the FEV1 test; if, in addition, such tests also reveal the values specified in either paragraph (b)(2)(i)(A) or (B) or (C) of this section:

(A) Values equal to or less than those listed in Table B3 (Males) or Table B4 (Females) in Appendix B of this part, for an individual of the miner's age, sex, and height for the FVC test, or

(B) Values equal to or less than those listed in Table B5 (Males) or Table B6 (Females) in Appendix B to this part, for an individual of the miner's age, sex, and height for the MVV test, or

(C) A percentage of 55 or less when the results of the FEV1 test are divided by the results of the FVC test (FEV1/FVC equal to or less than 55%), or

(ii) Arterial blood-gas tests show the values listed in Appendix C to this part, or

(iii) The miner has pneumoconiosis and has been shown by the medical evidence to be suffering from cor pulmonale with right-sided congestive heart failure, or

(iv) Where total disability cannot be shown under paragraphs (b)(2)(i), (ii), or (iii) of this section, or where pulmonary function tests and/or blood gas studies are medically contraindicated, total disability may nevertheless be found if a physician exercising reasoned medical judgment, based on medically acceptable clinical and laboratory diagnostic techniques, concludes that a miner's respiratory or pulmonary condition prevents or prevented the miner from engaging in employment as described in paragraph (b)(1) of this section.

(c)(1) *Total disability due to pneumoconiosis defined.* A miner shall be considered totally disabled due to pneumoconiosis if pneumoconiosis, as defined in § 718.201, is a substantially contributing cause of the miner's totally disabling respiratory or pulmonary impairment. Pneumoconiosis is a ''substantially contributing cause'' of the miner's disability if it:

(i) Has a material adverse effect on the miner's respiratory or pulmonary condition; or

(ii) Materially worsens a totally disabling respiratory or pulmonary impairment which is caused by a disease or exposure unrelated to coal mine employment.

(2) Except as provided in § 718.305 and paragraph (b)(2)(iii) of this section, proof that the miner suffers or suffered from a totally disabling respiratory or pulmonary impairment as defined in paragraphs (b)(2)(i), (b)(2)(ii), (b)(2)(iv) and (d) of this section shall not, by itself, be sufficient to establish that the miner's impairment is or was due to pneumoconiosis. Except as provided in paragraph (d), the cause or causes of a miner's total disability shall be established by means of a physician's documented and reasoned medical report.

(d) *Lay evidence.* In establishing total disability, lay evidence may be used in the following cases:

(1) In a case involving a deceased miner in which the claim was filed prior to January 1, 1982, affidavits (or equivalent sworn testimony) from persons knowledgeable of the miner's physical condition shall be sufficient to establish total (or under § 718.306 partial) disability due to pneumoconiosis if no medical or other relevant evidence exists which addresses the miner's pulmonary or respiratory condition.

(2) In a case involving a survivor's claim filed on or after January 1, 1982, but prior to June 30, 1982, which is subject to § 718.306, affidavits (or equivalent sworn testimony) from persons knowledgeable of the miner's physical condition shall be sufficient to establish total or partial disability due to pneumoconiosis if no medical or other relevant evidence exists which addresses the miner's pulmonary or respiratory condition; however, such a determination shall not be based solely upon the affidavits or testimony of the claimant and/or his or her dependents who would be eligible for augmentation of the claimant's benefits if the claim were approved.

(3) In a case involving a deceased miner whose claim was filed on or after January 1, 1982, affidavits (or equivalent sworn testimony) from persons knowledgeable of the miner's physical condition shall be sufficient to establish total disability due to pneumoconiosis if no medical or other relevant evidence exists which addresses the miner's pulmonary or respiratory condition; however, such a determination shall not be based solely upon the affidavits or testimony of any person who would be eligible for benefits (including augmented benefits) if the claim were approved.

(4) Statements made before death by a deceased miner about his or her physical condition are relevant and shall be considered in making a determination as to whether the miner was totally disabled at the time of death.

(5) In the case of a living miner's claim, a finding of total disability due to pneumoconiosis shall not be made solely on the miner's statements or testimony.

(e) In determining total disability to perform usual coal mine work, the following shall apply in evaluating the miner's employment activities:

(1) In the case of a deceased miner, employment in a mine at the time of death shall not be conclusive evidence that the miner was not totally disabled. To disprove total disability, it must be shown that at the time the

miner died, there were no changed circumstances of employment indicative of his or her reduced ability to perform his or her usual coal mine work.

(2) In the case of a living miner, proof of current employment in a coal mine shall not be conclusive evidence that the miner is not totally disabled unless it can be shown that there are no changed circumstances of employment indicative of his or her reduced ability to perform his or her usual coal mine work.

(3) Changed circumstances of employment indicative of a miner's reduced ability to perform his or her usual coal mine work may include but are not limited to:

(i) The miner's reduced ability to perform his or her customary duties without help; or

(ii) The miner's reduced ability to perform his or her customary duties at his or her usual levels of rapidity, continuity or efficiency; or

(iii) The miner's transfer by request or assignment to less vigorous duties or to duties in a less dusty part of the mine.

§ 718.205 Death due to pneumoconiosis.

(a) Benefits are provided to eligible survivors of a miner whose death was due to pneumoconiosis. In order to receive benefits, the claimant must prove that:

(1) The miner had pneumoconiosis (*see* § 718.202);

(2) The miner's pneumoconiosis arose out of coal mine employment (*see* § 718.203); and

(3) The miner's death was due to pneumoconiosis as provided by this section.

(b) For the purpose of adjudicating survivors' claims filed prior to January 1, 1982, death will be considered due to pneumoconiosis if any of the following criteria is met:

(1) Where competent medical evidence established that the miner's death was due to pneumoconiosis, or

(2) Where death was due to multiple causes including pneumoconiosis and it is not medically feasible to distinguish which disease caused death or the extent to which pneumoconiosis contributed to the cause of death, or

(3) Where the presumption set forth at § 718.304 is applicable, or

(4) Where either of the presumptions set forth at § 718.303 or § 718.305 is applicable and has not been rebutted.

(5) Where the cause of death is significantly related to or aggravated by pneumoconiosis.

(c) For the purpose of adjudicating survivors' claims filed on or after January 1, 1982, death will be considered to be due to pneumoconiosis if any of the following criteria is met:

(1) Where competent medical evidence establishes that pneumoconiosis was the cause of the miner's death, or

(2) Where pneumoconiosis was a substantially contributing cause or factor leading to the miner's death or where the death was caused by complications of pneumoconiosis, or

(3) Where the presumption set forth at § 718.304 is applicable.

(4) However, survivors are not eligible for benefits where the miner's death was caused by a traumatic injury or the principal cause of death was a medical condition not related to pneumoconiosis, unless the evidence establishes that pneumoconiosis was a substantially contributing cause of death.

(5) Pneumoconiosis is a ''substantially contributing cause'' of a miner's death if it hastens the miner's death.

(d) To minimize the hardships to potentially entitled survivors due to the disruption of benefits upon the miner's death, survivors' claims filed on or after January 1, 1982, shall be adjudicated on an expedited basis in accordance with the following procedures. The initial burden is upon the claimant, with the assistance of the district director, to develop evidence which meets the requirements of paragraph (c) of this section. Where the initial medical evidence appears to establish that death was due to pneumoconiosis, the survivor will receive benefits unless the weight of the evidence as subsequently developed by the Department or the responsible operator establishes that the miner's death was not due to pneumoconiosis as defined in paragraph (c). However, no such benefits shall be found payable before the party responsible for the payment of such benefits shall have had a reasonable opportunity for the development

of rebuttal evidence. *See* § 725.414 concerning the operator's opportunity to develop evidence prior to an initial determination.

§ 718.206 Effect of findings by persons or agencies.

Decisions, statements, reports, opinions, or the like, of agencies, organizations, physicians or other individuals, about the existence, cause, and extent of a miner's disability, or the cause of a miner's death, are admissible. If properly submitted, such evidence shall be considered and given the weight to which it is entitled as evidence under all the facts before the adjudication officer in the claim.

Subpart D—Presumptions Applicable to Eligibility Determinations

SOURCE: 65 FR 80045, Dec. 20, 2000, unless otherwise noted.

§ 718.301 Establishing length of employment as a miner.

The presumptions set forth in §§ 718.302, 718.303, 718.305 and 718.306 apply only if a miner worked in one or more coal mines for the number of years required to invoke the presumption. The length of the miner's coal mine work history must be computed as provided by 20 CFR 725.101(a)(32).

§ 718.302 Relationship of pneumoconiosis to coal mine employment.

If a miner who is suffering or suffered from pneumoconiosis was employed for ten years or more in one or more coal mines, there shall be a rebuttable presumption that the pneumoconiosis arose out of such employment. (See § 718.203.)

§ 718.303 Death from a respirable disease.

(a)(1) If a deceased miner was employed for ten or more years in one or more coal mines and died from a respirable disease, there shall be a rebuttable presumption that his or her death was due to pneumoconiosis.

(2) Under this presumption, death shall be found due to a respirable disease in any case in which the evidence establishes that death was due to multiple causes, including a respirable disease, and it is not medically feasible to distinguish which disease caused death or the extent to which the respirable disease contributed to the cause of death.

(b) The presumption of paragraph (a) of this section may be rebutted by a showing that the deceased miner did not have pneumoconiosis, that his or her death was not due to pneumoconiosis or that pneumoconiosis did not contribute to his or her death.

(c) This section is not applicable to any claim filed on or after January 1, 1982.

§ 718.304 Irrebuttable presumption of total disability or death due to pneumoconiosis.

There is an irrebuttable presumption that a miner is totally disabled due to pneumoconiosis, that a miner's death was due to pneumoconiosis or that a miner was totally disabled due to pneumoconiosis at the time of death, if such miner is suffering or suffered from a chronic dust disease of the lung which:

(a) When diagnosed by chest X-ray (see § 718.202 concerning the standards for X-rays and the effect of interpretations of X-rays by physicians) yields one or more large opacities (greater than 1 centimeter in diameter) and would be classified in Category A, B, or C in:

(1) The ILO-U/C International Classification of Radiographs of the Pneumoconioses, 1971, or subsequent revisions thereto; or

(2) The International Classification of the Radiographs of the Pneumoconioses of the International Labour Office, Extended Classification (1968) (which may be referred to as the ''ILO Classification (1968)''); or

(3) The Classification of the Pneumoconioses of the Union Internationale Contra Cancer/Cincinnati (1968) (which may be referred to as the ''UICC/Cincinnati (1968) Classification''); or

(b) When diagnosed by biopsy or autopsy, yields massive lesions in the lung; or

(c) When diagnosed by means other than those specified in paragraphs (a)

and (b) of this section, would be a condition which could reasonably be expected to yield the results described in paragraph (a) or (b) of this section had diagnosis been made as therein described: *Provided*, *however*, That any diagnosis made under this paragraph shall accord with acceptable medical procedures.

§ 718.305 Presumption of pneumoconiosis.

(a) If a miner was employed for fifteen years or more in one or more underground coal mines, and if there is a chest X-ray submitted in connection with such miner's or his or her survivor's claim and it is interpreted as negative with respect to the requirements of § 718.304, and if other evidence demonstrates the existence of a totally disabling respiratory or pulmonary impairment, then there shall be a rebuttable presumption that such miner is totally disabled due to pneumoconiosis, that such miner's death was due to pneumoconiosis, or that at the time of death such miner was totally disabled by pneumoconiosis. In the case of a living miner's claim, a spouse's affidavit or testimony may not be used by itself to establish the applicability of the presumption. The Secretary shall not apply all or a portion of the requirement of this paragraph that the miner work in an underground mine where it is determined that conditions of the miner's employment in a coal mine were substantially similar to conditions in an underground mine. The presumption may be rebutted only by establishing that the miner does not, or did not have pneumoconiosis, or that his or her respiratory or pulmonary impairment did not arise out of, or in connection with, employment in a coal mine.

(b) In the case of a deceased miner, where there is no medical or other relevant evidence, affidavits of persons having knowledge of the miner's condition shall be considered to be sufficient to establish the existence of a totally disabling respiratory or pulmonary impairment for purposes of this section.

(c) The determination of the existence of a totally disabling respiratory or pulmonary impairment, for purposes of applying the presumption described in this section, shall be made in accordance with § 718.204.

(d) Where the cause of death or total disability did not arise in whole or in part out of dust exposure in the miner's coal mine employment or the evidence establishes that the miner does not or did not have pneumoconiosis, the presumption will be considered rebutted. However, in no case shall the presumption be considered rebutted on the basis of evidence demonstrating the existence of a totally disabling obstructive respiratory or pulmonary disease of unknown origin.

(e) This section is not applicable to any claim filed on or after January 1, 1982.

§ 718.306 Presumption of entitlement applicable to certain death claims.

(a) In the case of a miner who died on or before March 1, 1978, who was employed for 25 or more years in one or more coal mines prior to June 30, 1971, the eligible survivors of such miner whose claims have been filed prior to June 30, 1982, shall be entitled to the payment of benefits, unless it is established that at the time of death such miner was not partially or totally disabled due to pneumoconiosis. Eligible survivors shall, upon request, furnish such evidence as is available with respect to the health of the miner at the time of death, and the nature and duration of the miner's coal mine employment.

(b) For the purpose of this section, a miner will be considered to have been ''partially disabled'' if he or she had reduced ability to engage in work as defined in § 718.204(b).

(c) In order to rebut this presumption the evidence must demonstrate that the miner's ability to perform work as defined in § 718.204(b) was not reduced at the time of his or her death or that the miner did not have pneumoconiosis.

(d) None of the following items, by itself, shall be sufficient to rebut the presumption:

(1) Evidence that a deceased miner was employed in a coal mine at the time of death;

(2) Evidence pertaining to a deceased miner's level of earnings prior to death;

(3) A chest X-ray interpreted as negative for the existence of pneumoconiosis;

(4) A death certificate which makes no mention of pneumoconiosis.

APPENDIX A TO PART 718—STANDARDS FOR ADMINISTRATION AND INTERPRETATION OF CHEST ROENTGENOGRAMS (X-RAYS)

The following standards are established in accordance with sections 402(f)(1)(D) and 413(b) of the Act. They were developed in consultation with the National Institute for Occupational Safety and Health. These standards are promulgated for the guidance of physicians and medical technicians to insure that uniform procedures are used in administering and interpreting X-rays and that the best available medical evidence will be submitted in connection with a claim for black lung benefits. If it is established that one or more standards have not been met, the claims adjudicator may consider such fact in determining the evidentiary weight to be assigned to the physician's report of an X-ray.

(1) Every chest roentgenogram shall be a single postero-anterior projection at full inspiration on a 14 by 17 inch film. Additional chest films or views shall be obtained if they are necessary for clarification and classification. The film and cassette shall be capable of being positioned both vertically and horizontally so that the chest roentgenogram will include both apices and costophrenic angles. If a miner is too large to permit the above requirements, then a projection with minimum loss of costophrenic angle shall be made.

(2) Miners shall be disrobed from the waist up at the time the roentgenogram is given. The facility shall provide a dressing area and, for those miners who wish to use one, the facility shall provide a clean gown. Facilities shall be heated to a comfortable temperature.

(3) Roentgenograms shall be made only with a diagnostic X-ray machine having a rotating anode tube with a maximum of a 2 mm source (focal spot).

(4) Except as provided in paragraph (5), roentgenograms shall be made with units having generators which comply with the following: (a) the generators of existing roentgenographic units acquired by the examining facility prior to July 27, 1973, shall have a minimum rating of 200 mA at 100 kVp; (b) generators of units acquired subsequent to that date shall have a minimum rating of 300 mA at 125 kVp.

NOTE: A generator with a rating of 150 kVp is recommended.

(5) Roentgenograms made with battery-powered mobile or portable equipment shall be made with units having a minimum rating of 100 mA at 110 kVp at 500 Hz, or 200 mA at 110 kVp at 60 Hz.

(6) Capacitor discharge, and field emission units may be used.

(7) Roentgenograms shall be given only with equipment having a beam-limiting device which does not cause large unexposed boundaries. The use of such a device shall be discernible from an examination of the roentgenogram.

(8) To insure high quality chest roentgenograms:

(i) The maximum exposure time shall not exceed 1/20 of a second except that with single phase units with a rating less than 300 mA at 125 kVp and subjects with chest over 28 cm postero-anterior, the exposure may be increased to not more than 1/10 of a second;

(ii) The source or focal spot to film distance shall be at least 6 feet;

(iii) Only medium-speed film and medium-speed intensifying screens shall be used;

(iv) Film-screen contact shall be maintained and verified at 6-month or shorter intervals;

(v) Intensifying screens shall be inspected at least once a month and cleaned when necessary by the method recommended by the manufacturer;

(vi) All intensifying screens in a cassette shall be of the same type and made by the same manufacturer;

(vii) When using over 90 kV, a suitable grid or other means of reducing scattered radiation shall be used;

(viii) The geometry of the radiographic system shall insure that the central axis (ray) of the primary beam is perpendicular to the plane of the film surface and impinges on the center of the film.

(9) Radiographic processing:

(i) Either automatic or manual film processing is acceptable. A constant time-temperature technique shall be meticulously employed for manual processing.

(ii) If mineral or other impurities in the processing water introduce difficulty in obtaining a high-quality roentgenogram, a suitable filter or purification system shall be used.

(10) Before the miner is advised that the examination is concluded, the roentgenogram shall be processed and inspected and accepted for quality by the physician, or if the physician is not available, acceptance may be made by the radiologic technologist. In a case of a substandard roentgenogram, another shall be made immediately.

(11) An electric power supply shall be used which complies with the voltage, current, and regulation specified by the manufacturer of the machine.

(12) A densitometric test object may be required on each roentgenogram for an objective evaluation of film quality at the discretion of the Department of Labor.

(13) Each roentgenogram made under this Appendix shall be permanently and legibly marked with the name and address of the facility at which it is made, the miner's DOL claim number, the date of the roentgenogram, and left and right side of film. No other identifying markings shall be recorded on the roentgenogram.

[65 FR 80045, Dec. 20, 2000]

APPENDIX B TO PART 718—STANDARDS FOR ADMINISTRATION AND INTERPRETATION OF PULMONARY FUNCTION TESTS. TABLES B1, B2, B3, B4, B5, B6.

The following standards are established in accordance with section 402(f)(1)(D) of the Act. They were developed in consultation with the National Institute for Occupational Safety and Health (NIOSH). These standards are promulgated for the guidance of physicians and medical technicians to insure that uniform procedures are used in administering and interpreting ventilatory function tests and that the best available medical evidence will be submitted in support of a claim for black lung benefits. If it is established that one or more standards have not been met, the claims adjudicator may consider such fact in determining the evidentiary weight to be given to the results of the ventilatory function tests.

(1) Instruments to be used for the administration of pulmonary function tests shall be approved by NIOSH and shall conform to the following criteria:

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

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

(iii) The instrument shall 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 H20/liter/sec.

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

(v) The instrument used shall provide a tracing of flow versus volume (flow-volume loop) which displays the entire maximum inspiration and the entire maximum forced expiration. The instrument shall, in addition, provide tracings of the volume versus time tracing (spirogram) derived electronically from the flow-volume loop. Tracings are necessary to determine whether maximum inspiratory and expiratory efforts have been obtained during the FVC maneuver. If maximum voluntary ventilation is measured, the tracing shall record the individual breaths volumes versus time.

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

(vii) The instrument must be capable of being calibrated in the field with respect to the FEV1. The volume calibration shall be accomplished with a 3 L calibrating syringe and should agree to within 1 percent of a 3 L calibrating volume. The linearity of the instrument must be documented by a record of volume calibrations at three different flow rates of approximately 3 L/6 sec, 3 L/3 sec, and 3 L/sec.

(viii) For measuring maximum voluntary ventilation (MVV) the instrument shall have a response which is flat within ±10 percent up to 4 Hz at flow rates up to 12 liters per second over the volume range.

(ix) The spirogram shall be recorded at a speed of at least 20 mm/sec and a volume excursion of at least 10mm/L. Calculation of the FEV1 from the flow-volume loop is not acceptable. Original tracings shall be submitted.

(2) The administration of pulmonary function tests shall conform to the following criteria:

(i) Tests shall not be performed during or soon after an acute respiratory illness.

(ii) For the FEV1 and FVC, use of a nose clip is required. The procedures shall be explained in simple terms to the patient who shall be instructed to loosen any tight clothing and stand in front of the apparatus. The subject may sit, or stand, but care should be taken on repeat testing that the same position be used. Particular attention shall be given to insure that the chin is slightly elevated with the neck slightly extended. The subject shall be instructed to expire completely, momentarily hold his breath, place the mouthpiece in his mouth and close the mouth firmly about the mouthpiece to ensure no air leak. The subject will than make a maximum inspiration from the instrument and when maximum inspiration has been attained, without interruption, blow as hard, fast and completely as possible for at least 7 seconds or until a plateau has been attained in the volume-time curve with no detectable change in the expired volume during the last 2 seconds of maximal expiratory effort. A minimum of three flow-volume loops and derived spirometric tracings shall be carried out. The patient shall be observed throughout the study for compliance with instructions. Inspiration and expiration shall be checked visually for reproducibility. The effort shall be judged unacceptable when the patient:

(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 least 7 sec. or until an obvious plateau for at least 2 sec. in the volume-time curve has occurred; or

(D) Has coughed or closed his glottis; or

(E) 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

(F) Has an unsatisfactory start of expiration, one characterized by excessive hesitation (or false starts). Peak flow should be attained at the start of expiration and the volume-time tracing (spirogram) should have a smooth contour revealing gradually decreasing flow throughout expiration; or

(G) Has an excessive variability between the three acceptable curves. The variation between the two largest FEV1's of the three acceptable tracings should not exceed 5 percent of the largest FEV1 or 100 ml, whichever is greater. As individuals with obstructive disease or rapid decline in lung function will be less likely to achieve this degree of reproducibility, tests not meeting this criterion may still be submitted for consideration in support of a claim for black lung benefits. Failure to meet this standard should be clearly noted in the test report by the physician conducting or reviewing the test.

(iii) For the MVV, the subject shall 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 shall be performed with the subject in the standing position, if possible. Care shall be taken on repeat testing that the same position be used. The subject shall breathe normally into the mouthpiece of the apparatus for 10 to 15 seconds to become accustomed to the system. The subject shall then be instructed to breathe as deeply and as rapidly as possible, and shall be continually encouraged during the remainder of the maneuver. Subject shall continue the maneuver for 15 seconds. At least 5 minutes of rest shall be allowed between maneuvers. At least three MVV's shall be carried out. (*But see* §718.103(b).) During the maneuvers the patient shall be observed for compliance with instructions. The effort shall be judged unacceptable 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 acceptable curves. The variation between the two largest MVVs of the three satisfactory tracings shall not exceed 10 percent.

(iv) A calibration check shall 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 volume calibration shall be performed in accordance with the method described in paragraph (1)(vii) of this Appendix. Accuracy of the time measurement used in determining the FEV1 shall be checked using the manufacturer's stated procedure and shall be within ±3 percent of actual. The procedure described in the Appendix shall 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 FVC and FEV1 shall be to determine whether or not the patient has performed the test properly or as described in (2)(ii) of this Appendix. The largest recorded FVC and FEV1, corrected to BTPS, shall be used in the analysis.

(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 or the largest accumulated volume for a 15 second period corrected to BTPS and multiplied by four is to be reported as the MVV.

PREDICTION EQUATIONS FOR FEV1 MALES * 60% OF PREDICTED **

HEIGHT	AGE (YEARS)																								
(IN)	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
59.1	1.85	1.88	1.90	1.75	1.74	1.72	1.70	1.69	1.67	1.66	1.64	1.62	1.61	1.59	1.58	1.56	1.54	1.53	1.51	1.49	1.48	1.46	1.45	1.43	1.41
59.4	1.88	1.90	1.93	1.78	1.77	1.75	1.74	1.72	1.70	1.69	1.67	1.65	1.64	1.62	1.61	1.59	1.57	1.56	1.54	1.53	1.51	1.49	1.48	1.46	1.44
59.8	1.90	1.93	1.96	1.82	1.80	1.78	1.77	1.75	1.73	1.72	1.70	1.69	1.67	1.65	1.64	1.62	1.61	1.59	1.57	1.56	1.54	1.52	1.51	1.49	1.48
60.2	1.93	1.96	1.99	1.85	1.83	1.81	1.80	1.78	1.77	1.75	1.73	1.72	1.70	1.68	1.67	1.65	1.64	1.62	1.60	1.59	1.57	1.56	1.54	1.52	1.51
60.6	1.96	1.99	2.01	1.88	1.86	1.85	1.83	1.81	1.80	1.78	1.76	1.75	1.73	1.72	1.70	1.68	1.67	1.65	1.64	1.62	1.60	1.59	1.57	1.55	1.54
61.0	1.99	2.01	2.04	1.91	1.89	1.88	1.86	1.84	1.83	1.81	1.80	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67	1.65	1.63	1.62	1.60	1.59	1.57
61.4	2.01	2.04	2.07	1.94	1.92	1.91	1.89	1.88	1.86	1.84	1.83	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67	1.65	1.63	1.62	1.60
61.8	2.04	2.07	2.10	1.97	1.96	1.94	1.92	1.91	1.89	1.87	1.86	1.84	1.83	1.81	1.79	1.78	1.76	1.74	1.73	1.71	1.70	1.68	1.66	1.65	1.63
62.2	2.07	2.10	2.12	2.00	1.99	1.97	1.95	1.94	1.92	1.91	1.89	1.87	1.86	1.84	1.82	1.81	1.79	1.78	1.76	1.74	1.73	1.71	1.70	1.68	1.66
62.6	2.10	2.12	2.15	2.03	2.02	2.00	1.99	1.97	1.95	1.94	1.92	1.90	1.89	1.87	1.86	1.84	1.82	1.81	1.79	1.77	1.76	1.74	1.73	1.71	1.69
63.0	2.13	2.15	2.18	2.07	2.05	2.03	2.02	2.00	1.98	1.97	1.95	1.94	1.92	1.90	1.89	1.87	1.85	1.84	1.82	1.81	1.79	1.77	1.76	1.74	1.73
63.4	2.15	2.18	2.21	2.10	2.08	2.06	2.05	2.03	2.02	2.00	1.98	1.97	1.95	1.93	1.92	1.90	1.89	1.87	1.85	1.84	1.82	1.80	1.79	1.77	1.76
63.8	2.18	2.21	2.23	2.13	2.11	2.10	2.08	2.06	2.05	2.03	2.01	2.00	1.98	1.97	1.95	1.93	1.92	1.90	1.88	1.87	1.85	1.84	1.82	1.80	1.79
64.2	2.21	2.24	2.26	2.16	2.14	2.13	2.11	2.09	2.08	2.06	2.05	2.03	2.01	2.00	1.98	1.96	1.95	1.93	1.92	1.90	1.88	1.87	1.85	1.83	1.82
64.6	2.24	2.26	2.29	2.19	2.17	2.16	2.14	2.13	2.11	2.09	2.08	2.06	2.04	2.03	2.01	2.00	1.98	1.96	1.95	1.93	1.91	1.90	1.88	1.87	1.85
65.0	2.26	2.29	2.32	2.22	2.20	2.19	2.17	2.16	2.14	2.12	2.11	2.09	2.08	2.06	2.04	2.03	2.01	1.99	1.98	1.96	1.95	1.93	1.91	1.90	1.88
65.4	2.29	2.32	2.34	2.25	2.24	2.22	2.20	2.19	2.17	2.16	2.14	2.12	2.11	2.09	2.07	2.06	2.04	2.03	2.01	1.99	1.98	1.96	1.94	1.93	1.91
65.7	2.32	2.35	2.37	2.28	2.27	2.25	2.24	2.22	2.20	2.19	2.17	2.15	2.14	2.12	2.11	2.09	2.07	2.06	2.04	2.02	2.01	1.99	1.98	1.96	1.94
66.1	2.35	2.37	2.40	2.31	2.30	2.28	2.27	2.25	2.23	2.22	2.20	2.19	2.17	2.15	2.14	2.12	2.10	2.09	2.07	2.06	2.04	2.02	2.01	1.99	1.97
66.5	2.37	2.40	2.43	2.35	2.33	2.31	2.30	2.28	2.27	2.25	2.23	2.22	2.20	2.18	2.17	2.15	2.14	2.12	2.10	2.09	2.07	2.05	2.04	2.02	2.01
66.9	2.40	2.43	2.46	2.38	2.36	2.34	2.33	2.31	2.30	2.28	2.26	2.25	2.23	2.22	2.20	2.18	2.17	2.15	2.13	2.12	2.10	2.09	2.07	2.05	2.04
67.3	2.43	2.46	2.48	2.41	2.39	2.38	2.36	2.34	2.33	2.31	2.30	2.28	2.26	2.25	2.23	2.21	2.20	2.18	2.17	2.15	2.13	2.12	2.10	2.08	2.07
67.7	2.46	2.48	2.51	2.44	2.42	2.41	2.39	2.37	2.36	2.34	2.33	2.31	2.29	2.28	2.26	2.25	2.23	2.21	2.20	2.18	2.16	2.15	2.13	2.12	2.10
68.1	2.48	2.51	2.54	2.47	2.45	2.44	2.42	2.41	2.39	2.37	2.36	2.34	2.33	2.31	2.29	2.28	2.26	2.24	2.23	2.21	2.20	2.18	2.16	2.15	2.13
68.5	2.51	2.54	2.57	2.50	2.49	2.47	2.45	2.44	2.42	2.40	2.39	2.37	2.36	2.34	2.32	2.31	2.29	2.28	2.26	2.24	2.23	2.21	2.19	2.18	2.16
68.9	2.54	2.57	2.59	2.53	2.52	2.50	2.48	2.47	2.45	2.44	2.42	2.40	2.39	2.37	2.36	2.34	2.32	2.31	2.29	2.27	2.26	2.24	2.23	2.21	2.19
69.3	2.57	2.59	2.62	2.56	2.55	2.53	2.52	2.50	2.48	2.47	2.45	2.43	2.42	2.40	2.39	2.37	2.35	2.34	2.32	2.31	2.29	2.27	2.26	2.24	2.22
69.7	2.59	2.62	2.65	2.60	2.58	2.56	2.55	2.53	2.51	2.50	2.48	2.47	2.45	2.43	2.42	2.40	2.39	2.37	2.35	2.34	2.32	2.30	2.29	2.27	2.26
70.1	2.62	2.65	2.68	2.63	2.61	2.59	2.58	2.56	2.55	2.53	2.51	2.50	2.48	2.46	2.45	2.43	2.42	2.40	2.38	2.37	2.35	2.34	2.32	2.30	2.29
70.5	2.65	2.68	2.70	2.66	2.64	2.63	2.61	2.59	2.58	2.56	2.54	2.53	2.51	2.50	2.48	2.46	2.45	2.43	2.42	2.40	2.38	2.37	2.35	2.33	2.32
70.9	2.68	2.70	2.73	2.69	2.67	2.66	2.64	2.62	2.61	2.59	2.58	2.56	2.54	2.53	2.51	2.49	2.48	2.46	2.45	2.43	2.41	2.40	2.38	2.37	2.35
71.3	2.70	2.73	2.76	2.72	2.70	2.69	2.67	2.66	2.64	2.62	2.61	2.59	2.57	2.56	2.54	2.53	2.51	2.49	2.48	2.46	2.45	2.43	2.41	2.40	2.38
71.7	2.73	2.76	2.79	2.75	2.74	2.72	2.70	2.69	2.67	2.65	2.64	2.62	2.61	2.59	2.57	2.56	2.54	2.52	2.51	2.49	2.48	2.46	2.44	2.43	2.41
72.0	2.76	2.79	2.81	2.78	2.77	2.75	2.73	2.72	2.70	2.69	2.67	2.65	2.64	2.62	2.60	2.59	2.57	2.56	2.54	2.52	2.51	2.49	2.47	2.46	2.44
72.4	2.79	2.81	2.84	2.81	2.80	2.78	2.77	2.75	2.73	2.72	2.70	2.68	2.67	2.65	2.64	2.62	2.60	2.59	2.57	2.55	2.54	2.52	2.51	2.49	2.47
72.8	2.82	2.84	2.87	2.85	2.83	2.81	2.80	2.78	2.76	2.75	2.73	2.72	2.70	2.68	2.67	2.65	2.63	2.62	2.60	2.59	2.57	2.55	2.54	2.52	2.50
73.2	2.84	2.87	2.90	2.88	2.86	2.84	2.83	2.81	2.80	2.78	2.76	2.75	2.73	2.71	2.70	2.68	2.67	2.65	2.63	2.62	2.60	2.58	2.57	2.55	2.54
73.6	2.87	2.90	2.92	2.91	2.89	2.88	2.86	2.84	2.83	2.81	2.79	2.78	2.76	2.75	2.73	2.71	2.70	2.68	2.66	2.65	2.63	2.62	2.60	2.58	2.57
74.0	2.90	2.93	2.95	2.94	2.92	2.91	2.89	2.87	2.86	2.84	2.83	2.81	2.79	2.78	2.76	2.74	2.73	2.71	2.70	2.68	2.66	2.65	2.63	2.61	2.60
74.4	2.93	2.95	2.98	2.97	2.95	2.94	2.92	2.91	2.89	2.87	2.86	2.84	2.82	2.81	2.79	2.78	2.76	2.74	2.73	2.71	2.69	2.68	2.66	2.65	2.63
74.8	2.95	2.98	3.01	3.00	2.99	2.97	2.95	2.94	2.92	2.90	2.89	2.87	2.86	2.84	2.82	2.81	2.79	2.77	2.76	2.74	2.73	2.71	2.69	2.68	2.66
75.2	2.98	3.01	3.03	3.03	3.02	3.00	2.98	2.97	2.95	2.94	2.92	2.90	2.89	2.87	2.85	2.84	2.82	2.81	2.79	2.77	2.76	2.74	2.72	2.71	2.69
75.6	3.01	3.04	3.06	3.06	3.05	3.03	3.02	3.00	2.98	2.97	2.95	2.93	2.92	2.90	2.89	2.87	2.85	2.84	2.82	2.80	2.79	2.77	2.76	2.74	2.72
76.0	3.04	3.06	3.09	3.09	3.08	3.06	3.05	3.03	3.01	3.00	2.98	2.97	2.95	2.93	2.92	2.90	2.88	2.87	2.85	2.84	2.82	2.80	2.79	2.77	2.75
76.4	3.06	3.09	3.12	3.13	3.11	3.09	3.08	3.06	3.05	3.03	3.01	3.00	2.98	2.96	2.95	2.93	2.92	2.90	2.88	2.87	2.85	2.83	2.82	2.80	2.79
76.8	3.09	3.12	3.15	3.16	3.14	3.12	3.11	3.09	3.08	3.06	3.04	3.03	3.01	3.00	2.98	2.96	2.95	2.93	2.91	2.90	2.88	2.87	2.85	2.83	2.82
77.2	3.12	3.15	3.17	3.19	3.17	3.16	3.14	3.12	3.11	3.09	3.08	3.06	3.04	3.03	3.01	2.99	2.98	2.96	2.95	2.93	2.91	2.90	2.88	2.86	2.85
77.6	3.15	3.17	3.20	3.22	3.20	3.19	3.17	3.15	3.14	3.12	3.11	3.09	3.07	3.06	3.04	3.03	3.01	2.99	2.98	2.96	2.94	2.93	2.91	2.90	2.88
78.0	3.17	3.20	3.23	3.25	3.23	3.22	3.20	3.19	3.17	3.15	3.14	3.12	3.11	3.09	3.07	3.06	3.04	3.02	3.01	2.99	2.98	2.96	2.94	2.93	2.91
78.3	3.20	3.23	3.26	3.28	3.27	3.25	3.23	3.22	3.20	3.18	3.17	3.15	3.14	3.12	3.10	3.09	3.07	3.06	3.04	3.02	3.01	2.99	2.97	2.96	2.94
78.7	3.23	3.26	3.28	3.31	3.30	3.28	3.26	3.25	3.23	3.22	3.20	3.18	3.17	3.15	3.14	3.12	3.10	3.09	3.07	3.05	3.04	3.02	3.01	2.99	2.97
79.1	3.26	3.28	3.31	3.34	3.33	3.31	3.30	3.28	3.26	3.25	3.23	3.21	3.20	3.18	3.17	3.15	3.13	3.12	3.10	3.09	3.07	3.05	3.04	3.02	3.00
79.5	3.28	3.31	3.34	3.38	3.36	3.34	3.33	3.31	3.29	3.28	3.26	3.25	3.23	3.21	3.20	3.18	3.17	3.15	3.13	3.12	3.10	3.08	3.07	3.05	3.04
79.9	3.31	3.34	3.37	3.41	3.39	3.37	3.36	3.34	3.33	3.31	3.29	3.28	3.26	3.24	3.23	3.21	3.20	3.18	3.16	3.15	3.13	3.12	3.10	3.08	3.07
80.3	3.34	3.37	3.39	3.44	3.42	3.41	3.39	3.37	3.36	3.34	3.32	3.31	3.29	3.28	3.26	3.24	3.23	3.21	3.19	3.18	3.16	3.15	3.13	3.11	3.10
80.7	3.37	3.39	3.42	3.47	3.45	3.44	3.42	3.40	3.39	3.37	3.36	3.34	3.32	3.31	3.29	3.27	3.26	3.24	3.23	3.21	3.19	3.18	3.16	3.15	3.13
81.1	3.39	3.42	3.45	3.50	3.48	3.47	3.45	3.44	3.42	3.40	3.39	3.37	3.35	3.34	3.32	3.31	3.29	3.27	3.26	3.24	3.22	3.21	3.19	3.18	3.16
81.5	3.42	3.45	3.48	3.53	3.52	3.50	3.48	3.47	3.45	3.43	3.42	3.40	3.39	3.37	3.35	3.34	3.32	3.30	3.29	3.27	3.26	3.24	3.22	3.21	3.19
81.9	3.45	3.48	3.50	3.56	3.55	3.53	3.51	3.50	3.48	3.47	3.45	3.43	3.42	3.40	3.38	3.37	3.35	3.34	3.32	3.30	3.29	3.27	3.25	3.24	3.22
82.3	3.48	3.50	3.53	3.59	3.58	3.56	3.55	3.53	3.51	3.50	3.48	3.46	3.45	3.43	3.42	3.40	3.38	3.37	3.35	3.33	3.32	3.30	3.29	3.27	3.25
82.7	3.51	3.53	3.56	3.63	3.61	3.59	3.58	3.56	3.54	3.53	3.51	3.50	3.48	3.46	3.45	3.43	3.41	3.40	3.38	3.37	3.35	3.33	3.32	3.30	3.29

PREDICTION EQUATIONS FOR FEV1 MALES * 60% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
59.1	1.40	1.38	1.36	1.35	1.33	1.32	1.30	1.28	1.27	1.25	1.23	1.22	1.20	1.19	1.17	1.15	1.14	1.12	1.11	1.09	1.07	1.06	1.04	1.02	1.01
59.4	1.43	1.41	1.40	1.38	1.36	1.35	1.33	1.31	1.30	1.28	1.27	1.25	1.23	1.22	1.20	1.18	1.17	1.15	1.14	1.12	1.10	1.09	1.07	1.06	1.04
59.8	1.46	1.44	1.43	1.41	1.39	1.38	1.36	1.35	1.33	1.31	1.30	1.28	1.26	1.25	1.23	1.22	1.20	1.18	1.17	1.15	1.14	1.12	1.10	1.09	1.07
60.2	1.49	1.47	1.46	1.44	1.43	1.41	1.39	1.38	1.36	1.34	1.33	1.31	1.30	1.28	1.26	1.25	1.23	1.22	1.20	1.18	1.17	1.15	1.13	1.12	1.10
60.6	1.52	1.51	1.49	1.47	1.46	1.44	1.42	1.41	1.39	1.38	1.36	1.34	1.33	1.31	1.29	1.28	1.26	1.25	1.23	1.21	1.20	1.18	1.17	1.15	1.13
61.0	1.55	1.54	1.52	1.50	1.49	1.47	1.46	1.44	1.42	1.41	1.39	1.37	1.36	1.34	1.33	1.31	1.29	1.28	1.26	1.25	1.23	1.21	1.20	1.18	1.16
61.4	1.58	1.57	1.55	1.54	1.52	1.50	1.49	1.47	1.45	1.44	1.42	1.41	1.39	1.37	1.36	1.34	1.32	1.31	1.29	1.28	1.26	1.24	1.23	1.21	1.20
61.8	1.62	1.60	1.58	1.57	1.55	1.53	1.52	1.50	1.49	1.47	1.45	1.44	1.42	1.40	1.39	1.37	1.36	1.34	1.32	1.31	1.29	1.28	1.26	1.24	1.23
62.2	1.65	1.63	1.61	1.60	1.58	1.57	1.55	1.53	1.52	1.50	1.48	1.47	1.45	1.44	1.42	1.40	1.39	1.37	1.35	1.34	1.32	1.31	1.29	1.27	1.26
62.6	1.68	1.66	1.65	1.63	1.61	1.60	1.58	1.56	1.55	1.53	1.52	1.50	1.48	1.47	1.45	1.43	1.42	1.40	1.39	1.37	1.35	1.34	1.32	1.31	1.29
63.0	1.71	1.69	1.68	1.66	1.64	1.63	1.61	1.60	1.58	1.56	1.55	1.53	1.51	1.50	1.48	1.47	1.45	1.43	1.42	1.40	1.38	1.37	1.35	1.34	1.32
63.4	1.74	1.72	1.71	1.69	1.68	1.66	1.64	1.63	1.61	1.59	1.58	1.56	1.55	1.53	1.51	1.50	1.48	1.46	1.45	1.43	1.42	1.40	1.38	1.37	1.35
63.8	1.77	1.75	1.74	1.72	1.71	1.69	1.67	1.66	1.64	1.63	1.61	1.59	1.58	1.56	1.54	1.53	1.51	1.50	1.48	1.46	1.45	1.43	1.41	1.40	1.38
64.2	1.80	1.79	1.77	1.75	1.74	1.72	1.71	1.69	1.67	1.66	1.64	1.62	1.61	1.59	1.58	1.56	1.54	1.53	1.51	1.49	1.48	1.46	1.45	1.43	1.41
64.6	1.83	1.82	1.80	1.78	1.77	1.75	1.74	1.72	1.70	1.69	1.67	1.66	1.64	1.62	1.61	1.59	1.57	1.56	1.54	1.53	1.51	1.49	1.48	1.46	1.44
65.0	1.86	1.85	1.83	1.82	1.80	1.78	1.77	1.75	1.74	1.72	1.70	1.69	1.67	1.65	1.64	1.62	1.61	1.59	1.57	1.56	1.54	1.52	1.51	1.49	1.48
65.4	1.90	1.88	1.86	1.85	1.83	1.81	1.80	1.78	1.77	1.75	1.73	1.72	1.70	1.69	1.67	1.65	1.64	1.62	1.60	1.59	1.57	1.56	1.54	1.52	1.51
65.7	1.93	1.91	1.89	1.88	1.86	1.85	1.83	1.81	1.80	1.78	1.77	1.75	1.73	1.72	1.70	1.68	1.67	1.65	1.64	1.62	1.60	1.59	1.57	1.55	1.54
66.1	1.96	1.94	1.93	1.91	1.89	1.88	1.86	1.84	1.83	1.81	1.80	1.78	1.76	1.75	1.73	1.72	1.70	1.68	1.67	1.65	1.63	1.62	1.60	1.59	1.57
66.5	1.99	1.97	1.96	1.94	1.92	1.91	1.89	1.88	1.86	1.84	1.83	1.81	1.80	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67	1.65	1.63	1.62	1.60
66.9	2.02	2.00	1.99	1.97	1.96	1.94	1.92	1.91	1.89	1.88	1.86	1.84	1.83	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.66	1.65	1.63
67.3	2.05	2.04	2.02	2.00	1.99	1.97	1.95	1.94	1.92	1.91	1.89	1.87	1.86	1.84	1.83	1.81	1.79	1.78	1.76	1.74	1.73	1.71	1.70	1.68	1.66
67.7	2.08	2.07	2.05	2.03	2.02	2.00	1.99	1.97	1.95	1.94	1.92	1.91	1.89	1.87	1.86	1.84	1.82	1.81	1.79	1.78	1.76	1.74	1.73	1.71	1.69
68.1	2.11	2.10	2.08	2.07	2.05	2.03	2.02	2.00	1.98	1.97	1.95	1.94	1.92	1.90	1.89	1.87	1.86	1.84	1.82	1.81	1.79	1.77	1.76	1.74	1.73
68.5	2.15	2.13	2.11	2.10	2.08	2.06	2.05	2.03	2.02	2.00	1.98	1.97	1.95	1.94	1.92	1.90	1.89	1.87	1.85	1.84	1.82	1.81	1.79	1.77	1.76
68.9	2.18	2.16	2.14	2.13	2.11	2.10	2.08	2.06	2.05	2.03	2.01	2.00	1.98	1.97	1.95	1.93	1.92	1.90	1.89	1.87	1.85	1.84	1.82	1.80	1.79
69.3	2.21	2.19	2.18	2.16	2.14	2.13	2.11	2.09	2.08	2.06	2.05	2.03	2.01	2.00	1.98	1.97	1.95	1.93	1.92	1.90	1.88	1.87	1.85	1.84	1.82
69.7	2.24	2.22	2.21	2.19	2.17	2.16	2.14	2.13	2.11	2.09	2.08	2.06	2.04	2.03	2.01	2.00	1.98	1.96	1.95	1.93	1.92	1.90	1.88	1.87	1.85
70.1	2.27	2.25	2.24	2.22	2.21	2.19	2.17	2.16	2.14	2.12	2.11	2.09	2.08	2.06	2.04	2.03	2.01	2.00	1.98	1.96	1.95	1.93	1.91	1.90	1.88
70.5	2.30	2.29	2.27	2.25	2.24	2.22	2.20	2.19	2.17	2.16	2.14	2.12	2.11	2.09	2.07	2.06	2.04	2.03	2.01	1.99	1.98	1.96	1.95	1.93	1.91
70.9	2.33	2.32	2.30	2.28	2.27	2.25	2.24	2.22	2.20	2.19	2.17	2.15	2.14	2.12	2.11	2.09	2.07	2.06	2.04	2.03	2.01	1.99	1.98	1.96	1.94
71.3	2.36	2.35	2.33	2.32	2.30	2.28	2.27	2.25	2.23	2.22	2.20	2.19	2.17	2.15	2.14	2.12	2.10	2.09	2.07	2.06	2.04	2.02	2.01	1.99	1.98
71.7	2.40	2.38	2.36	2.35	2.33	2.31	2.30	2.28	2.27	2.25	2.23	2.22	2.20	2.18	2.17	2.15	2.14	2.12	2.10	2.09	2.07	2.05	2.04	2.02	2.01
72.0	2.43	2.41	2.39	2.38	2.36	2.35	2.33	2.31	2.30	2.28	2.26	2.25	2.23	2.22	2.20	2.18	2.17	2.15	2.13	2.12	2.10	2.09	2.07	2.05	2.04
72.4	2.46	2.44	2.43	2.41	2.39	2.38	2.36	2.34	2.33	2.31	2.30	2.28	2.26	2.25	2.23	2.21	2.20	2.18	2.17	2.15	2.13	2.12	2.10	2.08	2.07
72.8	2.49	2.47	2.46	2.44	2.42	2.41	2.39	2.38	2.36	2.34	2.33	2.31	2.29	2.28	2.26	2.25	2.23	2.21	2.20	2.18	2.16	2.15	2.13	2.12	2.10
73.2	2.52	2.50	2.49	2.47	2.46	2.44	2.42	2.41	2.39	2.37	2.36	2.34	2.33	2.31	2.29	2.28	2.26	2.24	2.23	2.21	2.20	2.18	2.16	2.15	2.13
73.6	2.55	2.54	2.52	2.50	2.49	2.47	2.45	2.44	2.42	2.41	2.39	2.37	2.36	2.34	2.32	2.31	2.29	2.28	2.26	2.24	2.23	2.21	2.19	2.18	2.16
74.0	2.58	2.57	2.55	2.53	2.52	2.50	2.49	2.47	2.45	2.44	2.42	2.40	2.39	2.37	2.36	2.34	2.32	2.31	2.29	2.27	2.26	2.24	2.23	2.21	2.19
74.4	2.61	2.60	2.58	2.57	2.55	2.53	2.52	2.50	2.48	2.47	2.45	2.44	2.42	2.40	2.39	2.37	2.35	2.34	2.32	2.31	2.29	2.27	2.26	2.24	2.22
74.8	2.64	2.63	2.61	2.60	2.58	2.56	2.55	2.53	2.52	2.50	2.48	2.47	2.45	2.43	2.42	2.40	2.39	2.37	2.35	2.34	2.32	2.30	2.29	2.27	2.26
75.2	2.68	2.66	2.64	2.63	2.61	2.60	2.58	2.56	2.55	2.53	2.51	2.50	2.48	2.47	2.45	2.43	2.42	2.40	2.38	2.37	2.35	2.34	2.32	2.30	2.29
75.6	2.71	2.69	2.67	2.66	2.64	2.63	2.61	2.59	2.58	2.56	2.55	2.53	2.51	2.50	2.48	2.46	2.45	2.43	2.42	2.40	2.38	2.37	2.35	2.33	2.32
76.0	2.74	2.72	2.71	2.69	2.67	2.66	2.64	2.63	2.61	2.59	2.58	2.56	2.54	2.53	2.51	2.50	2.48	2.46	2.45	2.43	2.41	2.40	2.38	2.37	2.35
76.4	2.77	2.75	2.74	2.72	2.70	2.69	2.67	2.66	2.64	2.62	2.61	2.59	2.58	2.56	2.54	2.53	2.51	2.49	2.48	2.46	2.45	2.43	2.41	2.40	2.38
76.8	2.80	2.78	2.77	2.75	2.74	2.72	2.70	2.69	2.67	2.66	2.64	2.62	2.61	2.59	2.57	2.56	2.54	2.53	2.51	2.49	2.48	2.46	2.44	2.43	2.41
77.2	2.83	2.82	2.80	2.78	2.77	2.75	2.73	2.72	2.70	2.69	2.67	2.65	2.64	2.62	2.61	2.59	2.57	2.56	2.54	2.52	2.51	2.49	2.48	2.46	2.44
77.6	2.86	2.85	2.83	2.81	2.80	2.78	2.77	2.75	2.73	2.72	2.70	2.69	2.67	2.65	2.64	2.62	2.60	2.59	2.57	2.56	2.54	2.52	2.51	2.49	2.47
78.0	2.89	2.88	2.86	2.85	2.83	2.81	2.80	2.78	2.76	2.75	2.73	2.72	2.70	2.68	2.67	2.65	2.64	2.62	2.60	2.59	2.57	2.55	2.54	2.52	2.51
78.3	2.93	2.91	2.89	2.88	2.86	2.84	2.83	2.81	2.80	2.78	2.76	2.75	2.73	2.72	2.70	2.68	2.67	2.65	2.63	2.62	2.60	2.59	2.57	2.55	2.54
78.7	2.96	2.94	2.92	2.91	2.89	2.88	2.86	2.84	2.83	2.81	2.79	2.78	2.76	2.75	2.73	2.71	2.70	2.68	2.67	2.65	2.63	2.62	2.60	2.58	2.57
79.1	2.99	2.97	2.96	2.94	2.92	2.91	2.89	2.87	2.86	2.84	2.83	2.81	2.79	2.78	2.76	2.75	2.73	2.71	2.70	2.68	2.66	2.65	2.63	2.62	2.60
79.5	3.02	3.00	2.99	2.97	2.95	2.94	2.92	2.91	2.89	2.87	2.86	2.84	2.82	2.81	2.79	2.78	2.76	2.74	2.73	2.71	2.70	2.68	2.66	2.65	2.63
79.9	3.05	3.03	3.02	3.00	2.99	2.97	2.95	2.94	2.92	2.90	2.89	2.87	2.86	2.84	2.82	2.81	2.79	2.77	2.76	2.74	2.73	2.71	2.69	2.68	2.66
80.3	3.08	3.07	3.05	3.03	3.02	3.00	2.98	2.97	2.95	2.94	2.92	2.90	2.89	2.87	2.85	2.84	2.82	2.81	2.79	2.77	2.76	2.74	2.73	2.71	2.69
80.7	3.11	3.10	3.08	3.06	3.05	3.03	3.02	3.00	2.98	2.97	2.95	2.93	2.92	2.90	2.89	2.87	2.85	2.84	2.82	2.80	2.79	2.77	2.76	2.74	2.72
81.1	3.14	3.13	3.11	3.10	3.08	3.06	3.05	3.03	3.01	3.00	2.98	2.97	2.95	2.93	2.92	2.90	2.88	2.87	2.85	2.84	2.82	2.80	2.79	2.77	2.76
81.5	3.18	3.16	3.14	3.13	3.11	3.09	3.08	3.06	3.05	3.03	3.01	3.00	2.98	2.96	2.95	2.93	2.92	2.90	2.88	2.87	2.85	2.84	2.82	2.80	2.79
81.9	3.21	3.19	3.17	3.16	3.14	3.13	3.11	3.09	3.08	3.06	3.04	3.03	3.01	3.00	2.98	2.96	2.95	2.93	2.91	2.90	2.88	2.87	2.85	2.83	2.82
82.3	3.24	3.22	3.21	3.19	3.17	3.16	3.14	3.12	3.11	3.09	3.08	3.06	3.04	3.03	3.01	2.99	2.98	2.96	2.95	2.93	2.91	2.90	2.88	2.86	2.85
82.7	3.27	3.25	3.24	3.22	3.20	3.19	3.17	3.16	3.14	3.12	3.11	3.09	3.07	3.06	3.04	3.03	3.01	2.99	2.98	2.96	2.94	2.93	2.91	2.90	2.88

PREDICTION EQUATIONS FOR FEV1 FEMALES * 80% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
51.2	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.23	1.21	1.20	1.19	1.18	1.16	1.15	1.14	1.13	1.11	1.10	1.09	1.08	1.06	1.05
51.6	1.37	1.36	1.34	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.12	1.10	1.09	1.08	1.07
52.0	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.28	1.27	1.26	1.25	1.23	1.22	1.21	1.20	1.18	1.17	1.16	1.15	1.13	1.12	1.11	1.10	1.08
52.4	1.40	1.39	1.38	1.36	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.17	1.16	1.15	1.14	1.12	1.11	1.10
52.8	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.32	1.30	1.29	1.28	1.27	1.25	1.24	1.23	1.22	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.11
53.1	1.43	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.21	1.19	1.18	1.17	1.16	1.14	1.13
53.5	1.45	1.44	1.42	1.41	1.40	1.39	1.37	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.27	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.17	1.16	1.15
53.9	1.47	1.45	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.23	1.21	1.20	1.19	1.18	1.16
54.3	1.48	1.47	1.46	1.44	1.43	1.42	1.41	1.39	1.38	1.37	1.36	1.34	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.20	1.19	1.18
54.7	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.28	1.27	1.26	1.25	1.23	1.22	1.21	1.20
55.1	1.51	1.50	1.49	1.48	1.46	1.45	1.44	1.43	1.41	1.40	1.39	1.38	1.36	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.22	1.21
55.5	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.32	1.30	1.29	1.28	1.27	1.25	1.24	1.23
55.9	1.55	1.53	1.52	1.51	1.50	1.48	1.47	1.46	1.45	1.43	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24
56.3	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.39	1.37	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.27	1.26
56.7	1.58	1.57	1.55	1.54	1.53	1.52	1.50	1.49	1.48	1.47	1.45	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.28
57.1	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.41	1.39	1.38	1.37	1.36	1.34	1.33	1.32	1.31	1.29
57.5	1.61	1.60	1.59	1.57	1.56	1.55	1.54	1.52	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31
57.9	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.48	1.46	1.45	1.44	1.43	1.41	1.40	1.39	1.38	1.36	1.35	1.34	1.33
58.3	1.64	1.63	1.62	1.61	1.59	1.58	1.57	1.56	1.54	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34
58.7	1.66	1.65	1.64	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.50	1.48	1.47	1.46	1.45	1.43	1.42	1.41	1.40	1.38	1.37	1.36
59.1	1.68	1.66	1.65	1.64	1.63	1.61	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.39	1.37
59.4	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.57	1.55	1.54	1.53	1.52	1.50	1.49	1.48	1.47	1.45	1.44	1.43	1.42	1.40	1.39
59.8	1.71	1.70	1.68	1.67	1.66	1.65	1.63	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.41
60.2	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.64	1.62	1.61	1.60	1.59	1.57	1.56	1.55	1.54	1.52	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42
60.6	1.74	1.73	1.72	1.70	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.48	1.46	1.45	1.44
61.0	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.66	1.64	1.63	1.62	1.61	1.59	1.58	1.57	1.56	1.54	1.53	1.52	1.51	1.49	1.48	1.47	1.46
61.4	1.77	1.76	1.75	1.74	1.72	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.50	1.48	1.47
61.8	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.68	1.66	1.65	1.64	1.63	1.61	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49
62.2	1.81	1.79	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.57	1.55	1.54	1.53	1.52	1.50
62.6	1.82	1.81	1.80	1.78	1.77	1.76	1.75	1.73	1.72	1.71	1.70	1.68	1.67	1.66	1.65	1.63	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52
63.0	1.84	1.83	1.81	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.64	1.62	1.61	1.60	1.59	1.57	1.56	1.55	1.54
63.4	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.77	1.75	1.74	1.73	1.72	1.70	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55
63.8	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.66	1.64	1.63	1.62	1.61	1.59	1.58	1.57
64.2	1.89	1.87	1.86	1.85	1.84	1.82	1.81	1.80	1.79	1.77	1.76	1.75	1.74	1.72	1.71	1.70	1.69	1.67	1.66	1.65	1.64	1.62	1.61	1.60	1.58
64.6	1.90	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.68	1.66	1.65	1.64	1.63	1.61	1.60
65.0	1.92	1.91	1.89	1.88	1.87	1.86	1.84	1.83	1.82	1.81	1.79	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.62
65.4	1.94	1.92	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.75	1.73	1.72	1.71	1.70	1.68	1.67	1.66	1.65	1.63
65.7	1.95	1.94	1.93	1.91	1.90	1.89	1.88	1.86	1.85	1.84	1.83	1.81	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65
66.1	1.97	1.96	1.94	1.93	1.92	1.91	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.77	1.75	1.74	1.73	1.72	1.70	1.69	1.68	1.67
66.5	1.98	1.97	1.96	1.95	1.93	1.92	1.91	1.90	1.88	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68
66.9	2.00	1.99	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.89	1.87	1.86	1.85	1.84	1.82	1.81	1.80	1.79	1.77	1.76	1.75	1.74	1.72	1.71	1.70
67.3	2.02	2.00	1.99	1.98	1.97	1.95	1.94	1.93	1.92	1.90	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71
67.7	2.03	2.02	2.01	2.00	1.98	1.97	1.96	1.94	1.93	1.92	1.91	1.89	1.88	1.87	1.86	1.84	1.83	1.82	1.81	1.79	1.78	1.77	1.76	1.74	1.73
68.1	2.05	2.04	2.02	2.01	2.00	1.99	1.97	1.96	1.95	1.94	1.92	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.75
68.5	2.07	2.05	2.04	2.03	2.01	2.00	1.99	1.98	1.96	1.95	1.94	1.93	1.91	1.90	1.89	1.88	1.86	1.85	1.84	1.83	1.81	1.80	1.79	1.78	1.76
68.9	2.08	2.07	2.06	2.04	2.03	2.02	2.01	1.99	1.98	1.97	1.96	1.94	1.93	1.92	1.91	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78
69.3	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	2.00	1.98	1.97	1.96	1.95	1.93	1.92	1.91	1.90	1.88	1.87	1.86	1.85	1.83	1.82	1.81	1.80
69.7	2.11	2.10	2.09	2.08	2.06	2.05	2.04	2.03	2.01	2.00	1.99	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.89	1.87	1.86	1.85	1.84	1.82	1.81
70.1	2.13	2.12	2.10	2.09	2.08	2.07	2.05	2.04	2.03	2.02	2.00	1.99	1.98	1.97	1.95	1.94	1.93	1.92	1.90	1.89	1.88	1.87	1.85	1.84	1.83
70.5	2.15	2.13	2.12	2.11	2.10	2.08	2.07	2.06	2.05	2.03	2.02	2.01	2.00	1.98	1.97	1.96	1.94	1.93	1.92	1.91	1.89	1.88	1.87	1.86	1.84
70.9	2.16	2.15	2.14	2.12	2.11	2.10	2.09	2.07	2.06	2.05	2.04	2.02	2.01	2.00	1.99	1.97	1.96	1.95	1.94	1.92	1.91	1.90	1.89	1.87	1.86
71.3	2.18	2.17	2.15	2.14	2.13	2.12	2.10	2.09	2.08	2.07	2.05	2.04	2.03	2.01	2.00	1.99	1.98	1.96	1.95	1.94	1.93	1.91	1.90	1.89	1.88
71.7	2.19	2.18	2.17	2.16	2.14	2.13	2.12	2.11	2.09	2.08	2.07	2.06	2.04	2.03	2.02	2.01	1.99	1.98	1.97	1.96	1.94	1.93	1.92	1.91	1.89
72.0	2.21	2.20	2.19	2.17	2.16	2.15	2.14	2.12	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	2.00	1.98	1.97	1.96	1.95	1.93	1.92	1.91
72.4	2.23	2.21	2.20	2.19	2.18	2.16	2.15	2.14	2.13	2.11	2.10	2.09	2.08	2.06	2.05	2.04	2.03	2.01	2.00	1.99	1.98	1.96	1.95	1.94	1.92
72.8	2.24	2.23	2.22	2.21	2.19	2.18	2.17	2.16	2.14	2.13	2.12	2.10	2.09	2.08	2.07	2.05	2.04	2.03	2.02	2.00	1.99	1.98	1.97	1.95	1.94
73.2	2.26	2.25	2.23	2.22	2.21	2.20	2.18	2.17	2.16	2.15	2.13	2.12	2.11	2.10	2.08	2.07	2.06	2.05	2.03	2.02	2.01	2.00	1.98	1.97	1.96
73.6	2.28	2.26	2.25	2.24	2.23	2.21	2.20	2.19	2.18	2.16	2.15	2.14	2.12	2.11	2.10	2.09	2.07	2.06	2.05	2.04	2.02	2.01	2.00	1.99	1.97
74.0	2.29	2.28	2.27	2.25	2.24	2.23	2.22	2.20	2.19	2.18	2.17	2.15	2.14	2.13	2.12	2.10	2.09	2.08	2.07	2.05	2.04	2.03	2.01	2.00	1.99
74.4	2.31	2.30	2.28	2.27	2.26	2.25	2.23	2.22	2.21	2.19	2.18	2.17	2.16	2.14	2.13	2.12	2.11	2.09	2.08	2.07	2.06	2.04	2.03	2.02	2.01
74.8	2.32	2.31	2.30	2.29	2.27	2.26	2.25	2.24	2.22	2.21	2.20	2.19	2.17	2.16	2.15	2.14	2.12	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02

PREDICTION EQUATIONS FOR FEV1 FEMALES * 60% OF PREDICTED **

HEIGHT	AGE (YEARS)																								
(IN)	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
51.2	1.04	1.02	1.01	1.00	0.99	0.97	0.96	0.95	0.94	0.92	0.91	0.90	0.89	0.87	0.86	0.85	0.84	0.82	0.81	0.80	0.79	0.77	0.76	0.75	0.73
51.6	1.05	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.95	0.94	0.93	0.92	0.90	0.89	0.88	0.86	0.85	0.84	0.83	0.81	0.80	0.79	0.78	0.76	0.75
52.0	1.07	1.06	1.04	1.03	1.02	1.01	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.89	0.88	0.87	0.86	0.84	0.83	0.82	0.81	0.79	0.78	0.77
52.4	1.09	1.07	1.06	1.05	1.04	1.02	1.01	1.00	0.99	0.97	0.96	0.95	0.93	0.92	0.91	0.90	0.88	0.87	0.86	0.85	0.83	0.82	0.81	0.80	0.78
52.8	1.10	1.09	1.08	1.06	1.05	1.04	1.03	1.01	1.00	0.99	0.98	0.96	0.95	0.94	0.93	0.91	0.90	0.89	0.88	0.86	0.85	0.84	0.83	0.81	0.80
53.1	1.12	1.11	1.09	1.08	1.07	1.06	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.95	0.94	0.93	0.92	0.90	0.89	0.88	0.87	0.85	0.84	0.83	0.82
53.5	1.13	1.12	1.11	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	0.98	0.97	0.96	0.95	0.93	0.92	0.91	0.90	0.88	0.87	0.86	0.84	0.83
53.9	1.15	1.14	1.13	1.11	1.10	1.09	1.08	1.06	1.05	1.04	1.02	1.01	1.00	0.99	0.97	0.96	0.95	0.94	0.92	0.91	0.90	0.89	0.87	0.86	0.85
54.3	1.17	1.15	1.14	1.13	1.12	1.10	1.09	1.08	1.07	1.05	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.95	0.94	0.93	0.92	0.90	0.89	0.88	0.86
54.7	1.18	1.17	1.16	1.15	1.13	1.12	1.11	1.10	1.08	1.07	1.06	1.04	1.03	1.02	1.01	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.89	0.88
55.1	1.20	1.19	1.17	1.16	1.15	1.14	1.12	1.11	1.10	1.09	1.07	1.06	1.05	1.04	1.02	1.01	1.00	0.99	0.97	0.96	0.95	0.93	0.92	0.91	0.90
55.5	1.22	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.11	1.10	1.09	1.08	1.06	1.05	1.04	1.03	1.01	1.00	0.99	0.98	0.96	0.95	0.94	0.93	0.91
55.9	1.23	1.22	1.21	1.19	1.18	1.17	1.16	1.14	1.13	1.12	1.11	1.09	1.08	1.07	1.06	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.95	0.94	0.93
56.3	1.25	1.24	1.22	1.21	1.20	1.19	1.17	1.16	1.15	1.13	1.12	1.11	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	0.98	0.97	0.96	0.95
56.7	1.26	1.25	1.24	1.23	1.21	1.20	1.19	1.18	1.16	1.15	1.14	1.13	1.11	1.10	1.09	1.08	1.06	1.05	1.04	1.02	1.01	1.00	0.99	0.97	0.96
57.1	1.28	1.27	1.26	1.24	1.23	1.22	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.12	1.10	1.09	1.08	1.07	1.05	1.04	1.03	1.02	1.00	0.99	0.98
57.5	1.30	1.28	1.27	1.26	1.25	1.23	1.22	1.21	1.20	1.18	1.17	1.16	1.15	1.13	1.12	1.11	1.10	1.08	1.07	1.06	1.04	1.03	1.02	1.01	0.99
57.9	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.17	1.16	1.15	1.14	1.12	1.11	1.10	1.09	1.07	1.06	1.05	1.04	1.02	1.01
58.3	1.33	1.32	1.30	1.29	1.28	1.27	1.25	1.24	1.23	1.22	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.11	1.10	1.09	1.08	1.06	1.05	1.04	1.03
58.7	1.35	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.21	1.19	1.18	1.17	1.16	1.14	1.13	1.12	1.11	1.09	1.08	1.07	1.06	1.04
59.1	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.27	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.17	1.16	1.15	1.13	1.12	1.11	1.10	1.08	1.07	1.06
59.4	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.23	1.21	1.20	1.19	1.18	1.16	1.15	1.14	1.13	1.11	1.10	1.09	1.08
59.8	1.39	1.38	1.37	1.36	1.34	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.12	1.10	1.09
60.2	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.28	1.27	1.26	1.25	1.23	1.22	1.21	1.20	1.18	1.17	1.16	1.15	1.13	1.12	1.11
60.6	1.43	1.41	1.40	1.39	1.38	1.36	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.17	1.16	1.15	1.14	1.12
61.0	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.32	1.30	1.29	1.28	1.27	1.25	1.24	1.23	1.22	1.20	1.19	1.18	1.17	1.15	1.14
61.4	1.46	1.45	1.43	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.21	1.19	1.18	1.17	1.16
61.8	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.39	1.37	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.27	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.17
62.2	1.49	1.48	1.47	1.45	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.23	1.21	1.20	1.19
62.6	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.41	1.39	1.38	1.37	1.36	1.34	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.20
63.0	1.52	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.28	1.27	1.26	1.25	1.23	1.22
63.4	1.54	1.53	1.51	1.50	1.49	1.48	1.46	1.45	1.44	1.43	1.41	1.40	1.39	1.38	1.36	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24
63.8	1.56	1.54	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.32	1.30	1.29	1.28	1.27	1.25
64.2	1.57	1.56	1.55	1.53	1.52	1.51	1.50	1.48	1.47	1.46	1.45	1.43	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.29	1.28	1.27
64.6	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.39	1.37	1.36	1.35	1.34	1.32	1.31	1.30	1.29
65.0	1.60	1.59	1.58	1.57	1.55	1.54	1.53	1.52	1.50	1.49	1.48	1.47	1.45	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.31	1.30
65.4	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.41	1.39	1.38	1.37	1.36	1.34	1.33	1.32
65.7	1.64	1.62	1.61	1.60	1.59	1.57	1.56	1.55	1.54	1.52	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33
66.1	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.48	1.46	1.45	1.44	1.43	1.41	1.40	1.39	1.38	1.36	1.35
66.5	1.67	1.66	1.64	1.63	1.62	1.61	1.59	1.58	1.57	1.56	1.54	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.37
66.9	1.69	1.67	1.66	1.65	1.64	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.50	1.48	1.47	1.46	1.45	1.43	1.42	1.41	1.40	1.38
67.3	1.70	1.69	1.68	1.66	1.65	1.64	1.63	1.61	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40
67.7	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.57	1.55	1.54	1.53	1.52	1.50	1.49	1.48	1.47	1.45	1.44	1.43	1.42
68.1	1.73	1.72	1.71	1.70	1.68	1.67	1.66	1.65	1.63	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43
68.5	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.64	1.62	1.61	1.60	1.59	1.57	1.56	1.55	1.54	1.52	1.51	1.50	1.49	1.47	1.46	1.45
68.9	1.77	1.75	1.74	1.73	1.72	1.70	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.48	1.46
69.3	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.66	1.64	1.63	1.62	1.61	1.59	1.58	1.57	1.56	1.54	1.53	1.52	1.51	1.49	1.48
69.7	1.80	1.79	1.77	1.76	1.75	1.74	1.72	1.71	1.70	1.69	1.67	1.66	1.65	1.64	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.50
70.1	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.68	1.66	1.65	1.64	1.63	1.61	1.60	1.59	1.58	1.56	1.55	1.54	1.53	1.51
70.5	1.83	1.82	1.81	1.79	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.57	1.55	1.54	1.53
70.9	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.75	1.73	1.72	1.71	1.70	1.68	1.67	1.66	1.65	1.63	1.62	1.61	1.60	1.58	1.57	1.56	1.55
71.3	1.86	1.85	1.84	1.83	1.81	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.64	1.62	1.61	1.60	1.59	1.57	1.56
71.7	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.77	1.75	1.74	1.73	1.72	1.70	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58
72.0	1.90	1.88	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.66	1.64	1.63	1.62	1.61	1.59
72.4	1.91	1.90	1.89	1.87	1.86	1.85	1.84	1.82	1.81	1.80	1.79	1.77	1.76	1.75	1.74	1.72	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61
72.8	1.93	1.92	1.90	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.68	1.66	1.65	1.64	1.63
73.2	1.94	1.93	1.92	1.91	1.89	1.88	1.87	1.86	1.84	1.83	1.82	1.81	1.79	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64
73.6	1.96	1.95	1.94	1.92	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.75	1.73	1.72	1.71	1.70	1.68	1.67	1.66
74.0	1.98	1.96	1.95	1.94	1.93	1.91	1.90	1.89	1.88	1.86	1.85	1.84	1.83	1.81	1.80	1.79	1.78	1.76	1.75	1.74	1.73	1.71	1.70	1.69	1.67
74.4	1.99	1.98	1.97	1.96	1.94	1.93	1.92	1.91	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.77	1.75	1.74	1.73	1.72	1.70	1.69
74.8	2.01	2.00	1.98	1.97	1.96	1.95	1.93	1.92	1.91	1.90	1.88	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.71

PREDICTION EQUATIONS FOR FVC MALES * 60% OF PREDICTED **

HEIGHT	AGE (YEARS)																								
(IN)	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
59.1	2.22	2.27	2.32	2.14	2.12	2.10	2.09	2.07	2.05	2.04	2.02	2.00	1.98	1.97	1.95	1.93	1.91	1.90	1.88	1.86	1.84	1.83	1.81	1.79	1.77
59.4	2.25	2.30	2.35	2.18	2.16	2.14	2.13	2.11	2.09	2.07	2.06	2.04	2.02	2.00	1.99	1.97	1.95	1.93	1.92	1.90	1.88	1.87	1.85	1.83	1.81
59.8	2.28	2.33	2.38	2.22	2.20	2.18	2.17	2.15	2.13	2.11	2.10	2.08	2.06	2.04	2.03	2.01	1.99	1.97	1.96	1.94	1.92	1.90	1.89	1.87	1.85
60.2	2.31	2.36	2.41	2.26	2.24	2.22	2.20	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.07	2.05	2.03	2.01	2.00	1.98	1.96	1.94	1.93	1.91	1.89
60.6	2.34	2.39	2.44	2.30	2.28	2.26	2.24	2.23	2.21	2.19	2.17	2.16	2.14	2.12	2.10	2.09	2.07	2.05	2.03	2.02	2.00	1.98	1.96	1.95	1.93
61.0	2.37	2.42	2.47	2.33	2.32	2.30	2.28	2.26	2.25	2.23	2.21	2.20	2.18	2.16	2.14	2.13	2.11	2.09	2.07	2.06	2.04	2.02	2.00	1.99	1.97
61.4	2.40	2.45	2.50	2.37	2.36	2.34	2.32	2.30	2.29	2.27	2.25	2.23	2.22	2.20	2.18	2.16	2.15	2.13	2.11	2.10	2.08	2.06	2.04	2.03	2.01
61.8	2.43	2.48	2.53	2.41	2.40	2.38	2.36	2.34	2.33	2.31	2.29	2.27	2.26	2.24	2.22	2.20	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.06	2.05
62.2	2.46	2.51	2.56	2.45	2.43	2.42	2.40	2.38	2.36	2.35	2.33	2.31	2.29	2.28	2.26	2.24	2.23	2.21	2.19	2.17	2.16	2.14	2.12	2.10	2.09
62.6	2.49	2.54	2.59	2.49	2.47	2.46	2.44	2.42	2.40	2.39	2.37	2.35	2.33	2.32	2.30	2.28	2.26	2.25	2.23	2.21	2.19	2.18	2.16	2.14	2.13
63.0	2.52	2.57	2.62	2.53	2.51	2.49	2.48	2.46	2.44	2.43	2.41	2.39	2.37	2.36	2.34	2.32	2.30	2.29	2.27	2.25	2.23	2.22	2.20	2.18	2.16
63.4	2.55	2.60	2.65	2.57	2.55	2.53	2.52	2.50	2.48	2.46	2.45	2.43	2.41	2.39	2.38	2.36	2.34	2.32	2.31	2.29	2.27	2.26	2.24	2.22	2.20
63.8	2.58	2.63	2.68	2.61	2.59	2.57	2.56	2.54	2.52	2.50	2.49	2.47	2.45	2.43	2.42	2.40	2.38	2.36	2.35	2.33	2.31	2.29	2.28	2.26	2.24
64.2	2.61	2.66	2.71	2.65	2.63	2.61	2.59	2.58	2.56	2.54	2.52	2.51	2.49	2.47	2.46	2.44	2.42	2.40	2.39	2.37	2.35	2.33	2.32	2.30	2.28
64.6	2.64	2.69	2.74	2.69	2.67	2.65	2.63	2.62	2.60	2.58	2.56	2.55	2.53	2.51	2.49	2.48	2.46	2.44	2.42	2.41	2.39	2.37	2.36	2.34	2.32
65.0	2.67	2.72	2.77	2.72	2.71	2.69	2.67	2.65	2.64	2.62	2.60	2.59	2.57	2.55	2.53	2.52	2.50	2.48	2.46	2.45	2.43	2.41	2.39	2.38	2.36
65.4	2.70	2.75	2.80	2.76	2.75	2.73	2.71	2.69	2.68	2.66	2.64	2.62	2.61	2.59	2.57	2.55	2.54	2.52	2.50	2.49	2.47	2.45	2.43	2.42	2.40
65.7	2.73	2.78	2.83	2.80	2.79	2.77	2.75	2.73	2.72	2.70	2.68	2.66	2.65	2.63	2.61	2.59	2.58	2.56	2.54	2.52	2.51	2.49	2.47	2.45	2.44
66.1	2.76	2.81	2.86	2.84	2.82	2.81	2.79	2.77	2.75	2.74	2.72	2.70	2.68	2.67	2.65	2.63	2.62	2.60	2.58	2.56	2.55	2.53	2.51	2.49	2.48
66.5	2.79	2.84	2.89	2.88	2.86	2.85	2.83	2.81	2.79	2.78	2.76	2.74	2.72	2.71	2.69	2.67	2.65	2.64	2.62	2.60	2.58	2.57	2.55	2.53	2.52
66.9	2.82	2.87	2.92	2.92	2.90	2.88	2.87	2.85	2.83	2.82	2.80	2.78	2.76	2.75	2.73	2.71	2.69	2.68	2.66	2.64	2.62	2.61	2.59	2.57	2.55
67.3	2.85	2.90	2.95	2.96	2.94	2.92	2.91	2.89	2.87	2.85	2.84	2.82	2.80	2.78	2.77	2.75	2.73	2.71	2.70	2.68	2.66	2.65	2.63	2.61	2.59
67.7	2.88	2.93	2.98	3.00	2.98	2.96	2.95	2.93	2.91	2.89	2.88	2.86	2.84	2.82	2.81	2.79	2.77	2.75	2.74	2.72	2.70	2.68	2.67	2.65	2.63
68.1	2.91	2.96	3.01	3.04	3.02	3.00	2.98	2.97	2.95	2.93	2.91	2.90	2.88	2.86	2.85	2.83	2.81	2.79	2.78	2.76	2.74	2.72	2.71	2.69	2.67
68.5	2.94	2.99	3.04	3.08	3.06	3.04	3.02	3.01	2.99	2.97	2.95	2.94	2.92	2.90	2.88	2.87	2.85	2.83	2.81	2.80	2.78	2.76	2.74	2.73	2.71
68.9	2.97	3.02	3.07	3.11	3.10	3.08	3.06	3.05	3.03	3.01	2.99	2.98	2.96	2.94	2.92	2.91	2.89	2.87	2.85	2.84	2.82	2.80	2.78	2.77	2.75
69.3	3.00	3.05	3.10	3.15	3.14	3.12	3.10	3.08	3.07	3.05	3.03	3.01	3.00	2.98	2.96	2.94	2.93	2.91	2.89	2.88	2.86	2.84	2.82	2.81	2.79
69.7	3.03	3.08	3.13	3.19	3.18	3.16	3.14	3.12	3.11	3.09	3.07	3.05	3.04	3.02	3.00	2.98	2.97	2.95	2.93	2.91	2.90	2.88	2.86	2.84	2.83
70.1	3.06	3.11	3.16	3.23	3.21	3.20	3.18	3.16	3.14	3.13	3.11	3.09	3.07	3.06	3.04	3.02	3.01	2.99	2.97	2.95	2.94	2.92	2.90	2.88	2.87
70.5	3.09	3.14	3.19	3.27	3.25	3.24	3.22	3.20	3.18	3.17	3.15	3.13	3.11	3.10	3.08	3.06	3.04	3.03	3.01	2.99	2.97	2.96	2.94	2.92	2.91
70.9	3.12	3.17	3.22	3.31	3.29	3.27	3.26	3.24	3.22	3.21	3.19	3.17	3.15	3.14	3.12	3.10	3.08	3.07	3.05	3.03	3.01	3.00	2.98	2.96	2.94
71.3	3.15	3.20	3.25	3.35	3.33	3.31	3.30	3.28	3.26	3.24	3.23	3.21	3.19	3.17	3.16	3.14	3.12	3.10	3.09	3.07	3.05	3.04	3.02	3.00	2.98
71.7	3.18	3.23	3.28	3.39	3.37	3.35	3.34	3.32	3.30	3.28	3.27	3.25	3.23	3.21	3.20	3.18	3.16	3.14	3.13	3.11	3.09	3.07	3.06	3.04	3.02
72.0	3.21	3.26	3.31	3.43	3.41	3.39	3.37	3.36	3.34	3.32	3.30	3.29	3.27	3.25	3.24	3.22	3.20	3.18	3.17	3.15	3.13	3.11	3.10	3.08	3.06
72.4	3.24	3.29	3.34	3.47	3.45	3.43	3.41	3.40	3.38	3.36	3.34	3.33	3.31	3.29	3.27	3.26	3.24	3.22	3.20	3.19	3.17	3.15	3.13	3.12	3.10
72.8	3.27	3.32	3.37	3.50	3.49	3.47	3.45	3.43	3.42	3.40	3.38	3.37	3.35	3.33	3.31	3.30	3.28	3.26	3.24	3.23	3.21	3.19	3.17	3.16	3.14
73.2	3.30	3.35	3.40	3.54	3.53	3.51	3.49	3.47	3.46	3.44	3.42	3.40	3.39	3.37	3.35	3.33	3.32	3.30	3.28	3.27	3.25	3.23	3.21	3.20	3.18
73.6	3.33	3.38	3.43	3.58	3.57	3.55	3.53	3.51	3.50	3.48	3.46	3.44	3.43	3.41	3.39	3.37	3.36	3.34	3.32	3.30	3.29	3.27	3.25	3.23	3.22
74.0	3.36	3.41	3.46	3.62	3.60	3.59	3.57	3.55	3.53	3.52	3.50	3.48	3.46	3.45	3.43	3.41	3.40	3.38	3.36	3.34	3.33	3.31	3.29	3.27	3.26
74.4	3.39	3.44	3.49	3.66	3.64	3.63	3.61	3.59	3.57	3.56	3.54	3.52	3.50	3.49	3.47	3.45	3.43	3.42	3.40	3.38	3.36	3.35	3.33	3.31	3.30
74.8	3.42	3.47	3.52	3.70	3.68	3.66	3.65	3.63	3.61	3.60	3.58	3.56	3.54	3.53	3.51	3.49	3.47	3.46	3.44	3.42	3.40	3.39	3.37	3.35	3.33
75.2	3.45	3.50	3.55	3.74	3.72	3.70	3.69	3.67	3.65	3.63	3.62	3.60	3.58	3.56	3.55	3.53	3.51	3.50	3.48	3.46	3.44	3.43	3.41	3.39	3.37
75.6	3.48	3.53	3.58	3.78	3.76	3.74	3.73	3.71	3.69	3.67	3.66	3.64	3.62	3.60	3.59	3.57	3.55	3.53	3.52	3.50	3.48	3.46	3.45	3.43	3.41
76.0	3.51	3.56	3.61	3.82	3.80	3.78	3.76	3.75	3.73	3.71	3.69	3.68	3.66	3.64	3.63	3.61	3.59	3.57	3.56	3.54	3.52	3.50	3.49	3.47	3.45
76.4	3.54	3.59	3.64	3.86	3.84	3.82	3.80	3.79	3.77	3.75	3.73	3.72	3.70	3.68	3.66	3.65	3.63	3.61	3.59	3.58	3.56	3.54	3.52	3.51	3.49
76.8	3.57	3.62	3.67	3.89	3.88	3.86	3.84	3.82	3.81	3.79	3.77	3.76	3.74	3.72	3.70	3.69	3.67	3.65	3.63	3.62	3.60	3.58	3.56	3.55	3.53
77.2	3.60	3.65	3.70	3.93	3.92	3.90	3.88	3.86	3.85	3.83	3.81	3.79	3.78	3.76	3.74	3.72	3.71	3.69	3.67	3.66	3.64	3.62	3.60	3.59	3.57
77.6	3.63	3.68	3.73	3.97	3.96	3.94	3.92	3.90	3.89	3.87	3.85	3.83	3.82	3.80	3.78	3.76	3.75	3.73	3.71	3.69	3.68	3.66	3.64	3.62	3.61
78.0	3.66	3.71	3.76	4.01	3.99	3.98	3.96	3.94	3.92	3.91	3.89	3.87	3.86	3.84	3.82	3.80	3.79	3.77	3.75	3.73	3.72	3.70	3.68	3.66	3.65
78.3	3.69	3.74	3.79	4.05	4.03	4.02	4.00	3.98	3.96	3.95	3.93	3.91	3.89	3.88	3.86	3.84	3.82	3.81	3.79	3.77	3.75	3.74	3.72	3.70	3.69
78.7	3.72	3.77	3.82	4.09	4.07	4.05	4.04	4.02	4.00	3.99	3.97	3.95	3.93	3.92	3.90	3.88	3.86	3.85	3.83	3.81	3.79	3.78	3.76	3.74	3.72
79.1	3.75	3.80	3.85	4.13	4.11	4.09	4.08	4.06	4.04	4.02	4.01	3.99	3.97	3.95	3.94	3.92	3.90	3.88	3.87	3.85	3.83	3.82	3.80	3.78	3.76
79.5	3.78	3.83	3.88	4.17	4.15	4.13	4.12	4.10	4.08	4.06	4.05	4.03	4.01	3.99	3.98	3.96	3.94	3.92	3.91	3.89	3.87	3.85	3.84	3.82	3.80
79.9	3.81	3.86	3.91	4.21	4.19	4.17	4.15	4.14	4.12	4.10	4.08	4.07	4.05	4.03	4.02	4.00	3.98	3.96	3.95	3.93	3.91	3.89	3.88	3.86	3.84
80.3	3.84	3.89	3.94	4.25	4.23	4.21	4.19	4.18	4.16	4.14	4.12	4.11	4.09	4.07	4.05	4.04	4.02	4.00	3.98	3.97	3.95	3.93	3.91	3.90	3.88
80.7	3.87	3.92	3.97	4.28	4.27	4.25	4.23	4.22	4.20	4.18	4.16	4.15	4.13	4.11	4.09	4.08	4.06	4.04	4.02	4.01	3.99	3.97	3.95	3.94	3.92
81.1	3.90	3.95	4.00	4.32	4.31	4.29	4.27	4.25	4.24	4.22	4.20	4.18	4.17	4.15	4.13	4.11	4.10	4.08	4.06	4.05	4.03	4.01	3.99	3.98	3.96
81.5	3.93	3.98	4.03	4.36	4.35	4.33	4.31	4.29	4.28	4.26	4.24	4.22	4.21	4.19	4.17	4.15	4.14	4.12	4.10	4.08	4.07	4.05	4.03	4.01	4.00
81.9	3.96	4.01	4.06	4.40	4.38	4.37	4.35	4.33	4.31	4.30	4.28	4.26	4.24	4.23	4.21	4.19	4.18	4.16	4.14	4.12	4.11	4.09	4.07	4.05	4.04
82.3	3.99	4.04	4.09	4.44	4.42	4.41	4.39	4.37	4.35	4.34	4.32	4.30	4.28	4.27	4.25	4.23	4.21	4.20	4.18	4.16	4.14	4.13	4.11	4.09	4.08
82.7	4.02	4.07	4.12	4.48	4.46	4.44	4.43	4.41	4.39	4.38	4.36	4.34	4.32	4.31	4.29	4.27	4.25	4.24	4.22	4.20	4.18	4.17	4.15	4.13	4.11

PREDICTION EQUATIONS FOR FVC — MALES — * 60% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
59.1	1.76	1.74	1.72	1.70	1.69	1.67	1.65	1.63	1.62	1.60	1.58	1.57	1.55	1.53	1.51	1.50	1.48	1.46	1.44	1.43	1.41	1.39	1.37	1.36	1.34
59.4	1.80	1.78	1.76	1.74	1.73	1.71	1.69	1.67	1.66	1.64	1.62	1.60	1.59	1.57	1.55	1.53	1.52	1.50	1.48	1.47	1.45	1.43	1.41	1.40	1.38
59.8	1.83	1.82	1.80	1.78	1.77	1.75	1.73	1.71	1.70	1.68	1.66	1.64	1.63	1.61	1.59	1.57	1.56	1.54	1.52	1.50	1.49	1.47	1.45	1.43	1.42
60.2	1.87	1.86	1.84	1.82	1.80	1.79	1.77	1.75	1.73	1.72	1.70	1.68	1.66	1.65	1.63	1.61	1.60	1.58	1.56	1.54	1.53	1.51	1.49	1.47	1.46
60.6	1.91	1.90	1.88	1.86	1.84	1.83	1.81	1.79	1.77	1.76	1.74	1.72	1.70	1.69	1.67	1.65	1.63	1.62	1.60	1.58	1.56	1.55	1.53	1.51	1.50
61.0	1.95	1.93	1.92	1.90	1.88	1.86	1.85	1.83	1.81	1.80	1.78	1.76	1.74	1.73	1.71	1.69	1.67	1.66	1.64	1.62	1.60	1.59	1.57	1.55	1.53
61.4	1.99	1.97	1.96	1.94	1.92	1.90	1.89	1.87	1.85	1.83	1.82	1.80	1.78	1.76	1.75	1.73	1.71	1.69	1.68	1.66	1.64	1.63	1.61	1.59	1.57
61.8	2.03	2.01	2.00	1.98	1.96	1.94	1.93	1.91	1.89	1.87	1.86	1.84	1.82	1.80	1.79	1.77	1.75	1.73	1.72	1.70	1.68	1.66	1.65	1.63	1.61
62.2	2.07	2.05	2.03	2.02	2.00	1.98	1.96	1.95	1.93	1.91	1.89	1.88	1.86	1.84	1.83	1.81	1.79	1.77	1.76	1.74	1.72	1.70	1.69	1.67	1.65
62.6	2.11	2.09	2.07	2.06	2.04	2.02	2.00	1.99	1.97	1.95	1.93	1.92	1.90	1.88	1.86	1.85	1.83	1.81	1.79	1.78	1.76	1.74	1.73	1.71	1.69
63.0	2.15	2.13	2.11	2.09	2.08	2.06	2.04	2.02	2.01	1.99	1.97	1.96	1.94	1.92	1.90	1.89	1.87	1.85	1.83	1.82	1.80	1.78	1.76	1.75	1.73
63.4	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.06	2.05	2.03	2.01	1.99	1.98	1.96	1.94	1.92	1.91	1.89	1.87	1.86	1.84	1.82	1.80	1.79	1.77
63.8	2.22	2.21	2.19	2.17	2.16	2.14	2.12	2.10	2.09	2.07	2.05	2.03	2.02	2.00	1.98	1.96	1.95	1.93	1.91	1.89	1.88	1.86	1.84	1.82	1.81
64.2	2.26	2.25	2.23	2.21	2.19	2.18	2.16	2.14	2.12	2.11	2.09	2.07	2.05	2.04	2.02	2.00	1.99	1.97	1.95	1.93	1.92	1.90	1.88	1.86	1.85
64.6	2.30	2.29	2.27	2.25	2.23	2.22	2.20	2.18	2.16	2.15	2.13	2.11	2.09	2.08	2.06	2.04	2.02	2.01	1.99	1.97	1.95	1.94	1.92	1.90	1.89
65.0	2.34	2.32	2.31	2.29	2.27	2.25	2.24	2.22	2.20	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.06	2.05	2.03	2.01	1.99	1.98	1.96	1.94	1.92
65.4	2.38	2.36	2.35	2.33	2.31	2.29	2.28	2.26	2.24	2.22	2.21	2.19	2.17	2.15	2.14	2.12	2.10	2.09	2.07	2.05	2.03	2.02	2.00	1.98	1.96
65.7	2.42	2.40	2.38	2.37	2.35	2.33	2.32	2.30	2.28	2.26	2.25	2.23	2.21	2.19	2.18	2.16	2.14	2.12	2.11	2.09	2.07	2.05	2.04	2.02	2.00
66.1	2.46	2.44	2.42	2.41	2.39	2.37	2.35	2.34	2.32	2.30	2.28	2.27	2.25	2.23	2.22	2.20	2.18	2.16	2.15	2.13	2.11	2.09	2.08	2.06	2.04
66.5	2.50	2.48	2.46	2.45	2.43	2.41	2.39	2.38	2.36	2.34	2.32	2.31	2.29	2.27	2.25	2.24	2.22	2.20	2.18	2.17	2.15	2.13	2.11	2.10	2.08
66.9	2.54	2.52	2.50	2.48	2.47	2.45	2.43	2.41	2.40	2.38	2.36	2.35	2.33	2.31	2.29	2.28	2.26	2.24	2.22	2.21	2.19	2.17	2.15	2.14	2.12
67.3	2.58	2.56	2.54	2.52	2.51	2.49	2.47	2.45	2.44	2.42	2.40	2.38	2.37	2.35	2.33	2.31	2.30	2.28	2.26	2.25	2.23	2.21	2.19	2.18	2.16
67.7	2.61	2.60	2.58	2.56	2.55	2.53	2.51	2.49	2.48	2.46	2.44	2.42	2.41	2.39	2.37	2.35	2.34	2.32	2.30	2.28	2.27	2.25	2.23	2.21	2.20
68.1	2.65	2.64	2.62	2.60	2.58	2.57	2.55	2.53	2.51	2.50	2.48	2.46	2.44	2.43	2.41	2.39	2.38	2.36	2.34	2.32	2.31	2.29	2.27	2.25	2.24
68.5	2.69	2.68	2.66	2.64	2.62	2.61	2.59	2.57	2.55	2.54	2.52	2.50	2.48	2.47	2.45	2.43	2.41	2.40	2.38	2.36	2.34	2.33	2.31	2.29	2.28
68.9	2.73	2.71	2.70	2.68	2.66	2.64	2.63	2.61	2.59	2.58	2.56	2.54	2.52	2.51	2.49	2.47	2.45	2.44	2.42	2.40	2.38	2.37	2.35	2.33	2.31
69.3	2.77	2.75	2.74	2.72	2.70	2.68	2.67	2.65	2.63	2.61	2.60	2.58	2.56	2.54	2.53	2.51	2.49	2.47	2.46	2.44	2.42	2.41	2.39	2.37	2.35
69.7	2.81	2.79	2.77	2.76	2.74	2.72	2.71	2.69	2.67	2.65	2.64	2.62	2.60	2.58	2.57	2.55	2.53	2.51	2.50	2.48	2.46	2.44	2.43	2.41	2.39
70.1	2.85	2.83	2.81	2.80	2.78	2.76	2.74	2.73	2.71	2.69	2.67	2.66	2.64	2.62	2.61	2.59	2.57	2.55	2.54	2.52	2.50	2.48	2.47	2.45	2.43
70.5	2.89	2.87	2.85	2.84	2.82	2.80	2.78	2.77	2.75	2.73	2.71	2.70	2.68	2.66	2.64	2.63	2.61	2.59	2.57	2.56	2.54	2.52	2.50	2.49	2.47
70.9	2.93	2.91	2.89	2.87	2.86	2.84	2.82	2.80	2.79	2.77	2.75	2.74	2.72	2.70	2.68	2.67	2.65	2.63	2.61	2.60	2.58	2.56	2.54	2.53	2.51
71.3	2.97	2.95	2.93	2.91	2.90	2.88	2.86	2.84	2.83	2.81	2.79	2.77	2.76	2.74	2.72	2.70	2.69	2.67	2.65	2.64	2.62	2.60	2.58	2.57	2.55
71.7	3.00	2.99	2.97	2.95	2.94	2.92	2.90	2.88	2.87	2.85	2.83	2.81	2.80	2.78	2.76	2.74	2.73	2.71	2.69	2.67	2.66	2.64	2.62	2.60	2.59
72.0	3.04	3.03	3.01	2.99	2.97	2.96	2.94	2.92	2.90	2.89	2.87	2.85	2.83	2.82	2.80	2.78	2.77	2.75	2.73	2.71	2.70	2.68	2.66	2.64	2.63
72.4	3.08	3.07	3.05	3.03	3.01	3.00	2.98	2.96	2.94	2.93	2.91	2.89	2.87	2.86	2.84	2.82	2.80	2.79	2.77	2.75	2.73	2.72	2.70	2.68	2.67
72.8	3.12	3.10	3.09	3.07	3.05	3.03	3.02	3.00	2.98	2.97	2.95	2.93	2.91	2.90	2.88	2.86	2.84	2.83	2.81	2.79	2.77	2.76	2.74	2.72	2.70
73.2	3.16	3.14	3.13	3.11	3.09	3.07	3.06	3.04	3.02	3.00	2.99	2.97	2.95	2.93	2.92	2.90	2.88	2.86	2.85	2.83	2.81	2.80	2.78	2.76	2.74
73.6	3.20	3.18	3.16	3.15	3.13	3.11	3.10	3.08	3.06	3.04	3.03	3.01	2.99	2.97	2.96	2.94	2.92	2.90	2.89	2.87	2.85	2.83	2.82	2.80	2.78
74.0	3.24	3.22	3.20	3.19	3.17	3.15	3.13	3.12	3.10	3.08	3.06	3.05	3.03	3.01	3.00	2.98	2.96	2.94	2.93	2.91	2.89	2.87	2.86	2.84	2.82
74.4	3.28	3.26	3.24	3.23	3.21	3.19	3.17	3.16	3.14	3.12	3.10	3.09	3.07	3.05	3.03	3.02	3.00	2.98	2.96	2.95	2.93	2.91	2.89	2.88	2.86
74.8	3.32	3.30	3.28	3.26	3.25	3.23	3.21	3.19	3.18	3.16	3.14	3.13	3.11	3.09	3.07	3.06	3.04	3.02	3.00	2.99	2.97	2.95	2.93	2.92	2.90
75.2	3.36	3.34	3.32	3.30	3.29	3.27	3.25	3.23	3.22	3.20	3.18	3.16	3.15	3.13	3.11	3.09	3.08	3.06	3.04	3.03	3.01	2.99	2.97	2.96	2.94
75.6	3.39	3.38	3.36	3.34	3.33	3.31	3.29	3.27	3.26	3.24	3.22	3.20	3.19	3.17	3.15	3.13	3.12	3.10	3.08	3.06	3.05	3.03	3.01	2.99	2.98
76.0	3.43	3.42	3.40	3.38	3.36	3.35	3.33	3.31	3.29	3.28	3.26	3.24	3.22	3.21	3.19	3.17	3.16	3.14	3.12	3.10	3.09	3.07	3.05	3.03	3.02
76.4	3.47	3.46	3.44	3.42	3.40	3.39	3.37	3.35	3.33	3.32	3.30	3.28	3.26	3.25	3.23	3.21	3.19	3.18	3.16	3.14	3.12	3.11	3.09	3.07	3.06
76.8	3.51	3.49	3.48	3.46	3.44	3.42	3.41	3.39	3.37	3.36	3.34	3.32	3.30	3.29	3.27	3.25	3.23	3.22	3.20	3.18	3.16	3.15	3.13	3.11	3.09
77.2	3.55	3.53	3.52	3.50	3.48	3.46	3.45	3.43	3.41	3.39	3.38	3.36	3.34	3.32	3.31	3.29	3.27	3.25	3.24	3.22	3.20	3.19	3.17	3.15	3.13
77.6	3.59	3.57	3.55	3.54	3.52	3.50	3.49	3.47	3.45	3.43	3.42	3.40	3.38	3.36	3.35	3.33	3.31	3.29	3.28	3.26	3.24	3.22	3.21	3.19	3.17
78.0	3.63	3.61	3.59	3.58	3.56	3.54	3.52	3.51	3.49	3.47	3.45	3.44	3.42	3.40	3.39	3.37	3.35	3.33	3.32	3.30	3.28	3.26	3.25	3.23	3.21
78.3	3.67	3.65	3.63	3.62	3.60	3.58	3.56	3.55	3.53	3.51	3.49	3.48	3.46	3.44	3.42	3.41	3.39	3.37	3.35	3.34	3.32	3.30	3.28	3.27	3.25
78.7	3.71	3.69	3.67	3.65	3.64	3.62	3.60	3.59	3.57	3.55	3.53	3.52	3.50	3.48	3.46	3.45	3.43	3.41	3.39	3.38	3.36	3.34	3.32	3.31	3.29
79.1	3.75	3.73	3.71	3.69	3.68	3.66	3.64	3.62	3.61	3.59	3.57	3.55	3.54	3.52	3.50	3.48	3.47	3.45	3.43	3.42	3.40	3.38	3.36	3.35	3.33
79.5	3.78	3.77	3.75	3.73	3.72	3.70	3.68	3.66	3.65	3.63	3.61	3.59	3.58	3.56	3.54	3.52	3.51	3.49	3.47	3.45	3.44	3.42	3.40	3.38	3.37
79.9	3.82	3.81	3.79	3.77	3.75	3.74	3.72	3.70	3.68	3.67	3.65	3.63	3.62	3.60	3.58	3.56	3.55	3.53	3.51	3.49	3.48	3.46	3.44	3.42	3.41
80.3	3.86	3.85	3.83	3.81	3.79	3.78	3.76	3.74	3.72	3.71	3.69	3.67	3.65	3.64	3.62	3.60	3.58	3.57	3.55	3.53	3.51	3.50	3.48	3.46	3.45
80.7	3.90	3.88	3.87	3.85	3.83	3.81	3.80	3.78	3.76	3.75	3.73	3.71	3.69	3.68	3.66	3.64	3.62	3.61	3.59	3.57	3.55	3.54	3.52	3.50	3.48
81.1	3.94	3.92	3.91	3.89	3.87	3.85	3.84	3.82	3.80	3.78	3.77	3.75	3.73	3.71	3.70	3.68	3.66	3.64	3.63	3.61	3.59	3.58	3.56	3.54	3.52
81.5	3.98	3.96	3.94	3.93	3.91	3.89	3.88	3.86	3.84	3.82	3.81	3.79	3.77	3.75	3.74	3.72	3.70	3.68	3.67	3.65	3.63	3.61	3.60	3.58	3.56
81.9	4.02	4.00	3.98	3.97	3.95	3.93	3.91	3.90	3.88	3.86	3.84	3.83	3.81	3.79	3.78	3.76	3.74	3.72	3.71	3.69	3.67	3.65	3.64	3.62	3.60
82.3	4.06	4.04	4.02	4.01	3.99	3.97	3.95	3.94	3.92	3.90	3.88	3.87	3.85	3.83	3.81	3.80	3.78	3.76	3.74	3.73	3.71	3.69	3.67	3.66	3.64
82.7	4.10	4.08	4.06	4.04	4.03	4.01	3.99	3.97	3.96	3.94	3.92	3.91	3.89	3.87	3.85	3.84	3.82	3.80	3.78	3.77	3.75	3.73	3.71	3.70	3.68

PREDICTION EQUATIONS FOR FVC FEMALES * 60% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
51.2	1.53	1.52	1.50	1.49	1.48	1.47	1.45	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.35	1.33	1.32	1.31	1.29	1.28	1.27	1.25	1.24	1.23	1.21
51.6	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.43	1.42	1.41	1.40	1.38	1.37	1.36	1.34	1.33	1.32	1.30	1.29	1.28	1.26	1.25	1.24
52.0	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.27	1.26
52.4	1.60	1.58	1.57	1.56	1.54	1.53	1.52	1.51	1.49	1.48	1.47	1.45	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.35	1.33	1.32	1.31	1.29	1.28
52.8	1.62	1.61	1.59	1.58	1.57	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.36	1.34	1.33	1.32	1.30
53.1	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.37	1.35	1.34	1.33
53.5	1.66	1.65	1.64	1.62	1.61	1.60	1.59	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48	1.47	1.45	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.35
53.9	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.59	1.58	1.57	1.55	1.54	1.53	1.52	1.50	1.49	1.48	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37
54.3	1.71	1.70	1.68	1.67	1.66	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.48	1.47	1.46	1.44	1.43	1.42	1.41	1.39
54.7	1.73	1.72	1.70	1.69	1.68	1.67	1.65	1.64	1.63	1.61	1.60	1.59	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48	1.47	1.45	1.44	1.43	1.41
55.1	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.59	1.58	1.57	1.56	1.54	1.53	1.52	1.50	1.49	1.48	1.46	1.45	1.44
55.5	1.78	1.76	1.75	1.74	1.72	1.71	1.70	1.68	1.67	1.66	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.49	1.47	1.46
55.9	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.61	1.60	1.59	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48
56.3	1.82	1.81	1.79	1.78	1.77	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.60	1.58	1.57	1.56	1.54	1.53	1.52	1.50
56.7	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.72	1.71	1.70	1.68	1.67	1.66	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.53
57.1	1.86	1.85	1.84	1.82	1.81	1.80	1.79	1.77	1.76	1.75	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.61	1.60	1.59	1.57	1.56	1.55
57.5	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.79	1.78	1.77	1.75	1.74	1.73	1.71	1.70	1.69	1.68	1.66	1.65	1.64	1.62	1.61	1.60	1.58	1.57
57.9	1.91	1.90	1.88	1.87	1.86	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.72	1.71	1.70	1.68	1.67	1.66	1.64	1.63	1.62	1.61	1.59
58.3	1.93	1.92	1.90	1.89	1.88	1.86	1.85	1.84	1.83	1.81	1.80	1.79	1.77	1.76	1.75	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.61
58.7	1.95	1.94	1.93	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.79	1.78	1.77	1.75	1.74	1.73	1.72	1.70	1.69	1.68	1.66	1.65	1.64
59.1	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.88	1.87	1.86	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.72	1.71	1.70	1.68	1.67	1.66
59.4	2.00	1.98	1.97	1.96	1.94	1.93	1.92	1.90	1.89	1.88	1.87	1.85	1.84	1.83	1.81	1.80	1.79	1.77	1.76	1.75	1.73	1.72	1.71	1.69	1.68
59.8	2.02	2.01	1.99	1.98	1.97	1.95	1.94	1.93	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.70
60.2	2.04	2.03	2.02	2.00	1.99	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.88	1.87	1.86	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.73
60.6	2.06	2.05	2.04	2.02	2.01	2.00	1.98	1.97	1.96	1.95	1.93	1.92	1.91	1.89	1.88	1.87	1.85	1.84	1.83	1.81	1.80	1.79	1.77	1.76	1.75
61.0	2.09	2.07	2.06	2.05	2.03	2.02	2.01	1.99	1.98	1.97	1.95	1.94	1.93	1.91	1.90	1.89	1.88	1.86	1.85	1.84	1.82	1.81	1.80	1.78	1.77
61.4	2.11	2.10	2.08	2.07	2.06	2.04	2.03	2.02	2.00	1.99	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.88	1.87	1.86	1.84	1.83	1.82	1.80	1.79
61.8	2.13	2.12	2.10	2.09	2.08	2.06	2.05	2.04	2.03	2.01	2.00	1.99	1.97	1.96	1.95	1.93	1.92	1.91	1.89	1.88	1.87	1.85	1.84	1.83	1.81
62.2	2.15	2.14	2.13	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	1.99	1.98	1.97	1.95	1.94	1.93	1.92	1.90	1.89	1.88	1.86	1.85	1.84
62.6	2.17	2.16	2.15	2.14	2.12	2.11	2.10	2.08	2.07	2.06	2.04	2.03	2.02	2.00	1.99	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.88	1.87	1.86
63.0	2.20	2.18	2.17	2.16	2.14	2.13	2.12	2.10	2.09	2.08	2.07	2.05	2.04	2.03	2.01	2.00	1.99	1.97	1.96	1.95	1.93	1.92	1.91	1.89	1.88
63.4	2.22	2.21	2.19	2.18	2.17	2.15	2.14	2.13	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	2.00	1.98	1.97	1.96	1.94	1.93	1.92	1.90
63.8	2.24	2.23	2.22	2.20	2.19	2.18	2.16	2.15	2.14	2.12	2.11	2.10	2.08	2.07	2.06	2.04	2.03	2.02	2.00	1.99	1.98	1.96	1.95	1.94	1.92
64.2	2.26	2.25	2.24	2.22	2.21	2.20	2.18	2.17	2.16	2.15	2.13	2.12	2.11	2.09	2.08	2.07	2.05	2.04	2.03	2.01	2.00	1.99	1.97	1.96	1.95
64.6	2.29	2.27	2.26	2.25	2.23	2.22	2.21	2.19	2.18	2.17	2.15	2.14	2.13	2.11	2.10	2.09	2.07	2.06	2.05	2.04	2.02	2.01	2.00	1.98	1.97
65.0	2.31	2.30	2.28	2.27	2.26	2.24	2.23	2.22	2.20	2.19	2.18	2.16	2.15	2.14	2.12	2.11	2.10	2.08	2.07	2.06	2.04	2.03	2.02	2.00	1.99
65.4	2.33	2.32	2.30	2.29	2.28	2.26	2.25	2.24	2.22	2.21	2.20	2.19	2.17	2.16	2.15	2.13	2.12	2.11	2.09	2.08	2.07	2.05	2.04	2.03	2.01
65.7	2.35	2.34	2.33	2.31	2.30	2.29	2.27	2.26	2.25	2.23	2.22	2.21	2.19	2.18	2.17	2.15	2.14	2.13	2.12	2.10	2.09	2.08	2.06	2.05	2.04
66.1	2.37	2.36	2.35	2.34	2.32	2.31	2.30	2.28	2.27	2.26	2.24	2.23	2.22	2.20	2.19	2.18	2.16	2.15	2.14	2.12	2.11	2.10	2.08	2.07	2.06
66.5	2.40	2.38	2.37	2.36	2.34	2.33	2.32	2.30	2.29	2.28	2.27	2.25	2.24	2.23	2.21	2.20	2.19	2.17	2.16	2.15	2.13	2.12	2.11	2.09	2.08
66.9	2.42	2.41	2.39	2.38	2.37	2.35	2.34	2.33	2.31	2.30	2.29	2.27	2.26	2.25	2.23	2.22	2.21	2.19	2.18	2.17	2.16	2.14	2.13	2.12	2.10
67.3	2.44	2.43	2.42	2.40	2.39	2.38	2.36	2.35	2.34	2.32	2.31	2.30	2.28	2.27	2.26	2.24	2.23	2.22	2.20	2.19	2.18	2.16	2.15	2.14	2.12
67.7	2.46	2.45	2.44	2.42	2.41	2.40	2.38	2.37	2.36	2.34	2.33	2.32	2.31	2.29	2.28	2.27	2.25	2.24	2.23	2.21	2.20	2.19	2.17	2.16	2.15
68.1	2.49	2.47	2.46	2.45	2.43	2.42	2.41	2.39	2.38	2.37	2.35	2.34	2.33	2.31	2.30	2.29	2.27	2.26	2.25	2.24	2.22	2.21	2.20	2.18	2.17
68.5	2.51	2.49	2.48	2.47	2.46	2.44	2.43	2.42	2.40	2.39	2.38	2.36	2.35	2.34	2.32	2.31	2.30	2.28	2.27	2.26	2.24	2.23	2.22	2.20	2.19
68.9	2.53	2.52	2.50	2.49	2.48	2.46	2.45	2.44	2.42	2.41	2.40	2.38	2.37	2.36	2.35	2.33	2.32	2.31	2.29	2.28	2.27	2.25	2.24	2.23	2.21
69.3	2.55	2.54	2.53	2.51	2.50	2.49	2.47	2.46	2.45	2.43	2.42	2.41	2.39	2.38	2.37	2.35	2.34	2.33	2.31	2.30	2.29	2.28	2.26	2.25	2.24
69.7	2.57	2.56	2.55	2.54	2.52	2.51	2.50	2.48	2.47	2.46	2.44	2.43	2.42	2.40	2.39	2.38	2.36	2.35	2.34	2.32	2.31	2.30	2.28	2.27	2.26
70.1	2.60	2.58	2.57	2.56	2.54	2.53	2.52	2.50	2.49	2.48	2.46	2.45	2.44	2.43	2.41	2.40	2.39	2.37	2.36	2.35	2.33	2.32	2.31	2.29	2.28
70.5	2.62	2.61	2.59	2.58	2.57	2.55	2.54	2.53	2.51	2.50	2.49	2.47	2.46	2.45	2.43	2.42	2.41	2.39	2.38	2.37	2.36	2.34	2.33	2.32	2.30
70.9	2.64	2.63	2.61	2.60	2.59	2.58	2.56	2.55	2.54	2.52	2.51	2.50	2.48	2.47	2.46	2.44	2.43	2.42	2.40	2.39	2.38	2.36	2.35	2.34	2.32
71.3	2.66	2.65	2.64	2.62	2.61	2.60	2.58	2.57	2.56	2.54	2.53	2.52	2.50	2.49	2.48	2.47	2.45	2.44	2.43	2.41	2.40	2.39	2.37	2.36	2.35
71.7	2.69	2.67	2.66	2.65	2.63	2.62	2.61	2.59	2.58	2.57	2.55	2.54	2.53	2.51	2.50	2.49	2.47	2.46	2.45	2.43	2.42	2.41	2.40	2.38	2.37
72.0	2.71	2.69	2.68	2.67	2.65	2.64	2.63	2.62	2.60	2.59	2.58	2.56	2.55	2.54	2.52	2.51	2.50	2.48	2.47	2.46	2.44	2.43	2.42	2.40	2.39
72.4	2.73	2.72	2.70	2.69	2.68	2.66	2.65	2.64	2.62	2.61	2.60	2.58	2.57	2.56	2.55	2.53	2.52	2.51	2.49	2.48	2.47	2.45	2.44	2.43	2.41
72.8	2.75	2.74	2.73	2.71	2.70	2.69	2.67	2.66	2.65	2.63	2.62	2.61	2.59	2.58	2.57	2.55	2.54	2.53	2.51	2.50	2.49	2.48	2.46	2.45	2.44
73.2	2.77	2.76	2.75	2.73	2.72	2.71	2.70	2.68	2.67	2.66	2.64	2.63	2.62	2.60	2.59	2.58	2.56	2.55	2.54	2.52	2.51	2.50	2.48	2.47	2.46
73.6	2.80	2.78	2.77	2.76	2.74	2.73	2.72	2.70	2.69	2.68	2.66	2.65	2.64	2.63	2.61	2.60	2.59	2.57	2.56	2.55	2.53	2.52	2.51	2.49	2.48
74.0	2.82	2.81	2.79	2.78	2.77	2.75	2.74	2.73	2.71	2.70	2.69	2.67	2.66	2.65	2.63	2.62	2.61	2.59	2.58	2.57	2.55	2.54	2.53	2.52	2.50
74.4	2.84	2.83	2.81	2.80	2.79	2.78	2.76	2.75	2.74	2.72	2.71	2.70	2.68	2.67	2.66	2.64	2.63	2.62	2.60	2.59	2.58	2.56	2.55	2.54	2.52
74.8	2.86	2.85	2.84	2.82	2.81	2.80	2.78	2.77	2.76	2.74	2.73	2.72	2.70	2.69	2.68	2.67	2.65	2.64	2.63	2.61	2.60	2.59	2.57	2.56	2.55

PREDICTION EQUATIONS FOR FVC FEMALES * 60% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
51.2	1.20	1.19	1.17	1.16	1.15	1.14	1.12	1.11	1.10	1.08	1.07	1.06	1.04	1.03	1.02	1.00	0.99	0.98	0.96	0.95	0.94	0.92	0.91	0.90	0.88
51.6	1.22	1.21	1.20	1.18	1.17	1.16	1.14	1.13	1.12	1.10	1.09	1.08	1.07	1.05	1.04	1.03	1.01	1.00	0.99	0.97	0.96	0.95	0.93	0.92	0.91
52.0	1.25	1.23	1.22	1.21	1.19	1.18	1.17	1.15	1.14	1.13	1.11	1.10	1.09	1.07	1.06	1.05	1.03	1.02	1.01	0.99	0.98	0.97	0.96	0.94	0.93
52.4	1.27	1.25	1.24	1.23	1.21	1.20	1.19	1.18	1.16	1.15	1.14	1.12	1.11	1.10	1.08	1.07	1.06	1.04	1.03	1.02	1.00	0.99	0.98	0.96	0.95
52.8	1.29	1.28	1.26	1.25	1.24	1.22	1.21	1.20	1.18	1.17	1.16	1.14	1.13	1.12	1.11	1.09	1.08	1.07	1.05	1.04	1.03	1.01	1.00	0.99	0.97
53.1	1.31	1.30	1.29	1.27	1.26	1.25	1.23	1.22	1.21	1.19	1.18	1.17	1.15	1.14	1.13	1.11	1.10	1.09	1.07	1.06	1.05	1.03	1.02	1.01	1.00
53.5	1.33	1.32	1.31	1.29	1.28	1.27	1.26	1.24	1.23	1.22	1.20	1.19	1.18	1.16	1.15	1.14	1.12	1.11	1.10	1.08	1.07	1.06	1.04	1.03	1.02
53.9	1.36	1.34	1.33	1.32	1.30	1.29	1.28	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.17	1.16	1.15	1.13	1.12	1.11	1.09	1.08	1.07	1.05	1.04
54.3	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.27	1.26	1.25	1.23	1.22	1.21	1.19	1.18	1.17	1.15	1.14	1.13	1.11	1.10	1.09	1.08	1.06
54.7	1.40	1.39	1.37	1.36	1.35	1.34	1.32	1.31	1.30	1.28	1.27	1.26	1.24	1.23	1.22	1.20	1.19	1.18	1.16	1.15	1.14	1.12	1.11	1.10	1.08
55.1	1.42	1.41	1.40	1.38	1.37	1.36	1.34	1.33	1.32	1.30	1.29	1.28	1.26	1.25	1.24	1.23	1.21	1.20	1.19	1.17	1.16	1.15	1.13	1.12	1.11
55.5	1.45	1.43	1.42	1.41	1.39	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.27	1.26	1.25	1.23	1.22	1.21	1.19	1.18	1.17	1.15	1.14	1.13
55.9	1.47	1.45	1.44	1.43	1.41	1.40	1.39	1.38	1.36	1.35	1.34	1.32	1.31	1.30	1.28	1.27	1.26	1.24	1.23	1.22	1.20	1.19	1.18	1.16	1.15
56.3	1.49	1.48	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.36	1.34	1.33	1.32	1.30	1.29	1.28	1.27	1.25	1.24	1.23	1.21	1.20	1.19	1.17
56.7	1.51	1.50	1.49	1.47	1.46	1.45	1.43	1.42	1.41	1.39	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.27	1.26	1.25	1.23	1.22	1.21	1.20
57.1	1.53	1.52	1.51	1.49	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.36	1.35	1.34	1.32	1.31	1.30	1.28	1.27	1.26	1.24	1.23	1.22
57.5	1.56	1.54	1.53	1.52	1.50	1.49	1.48	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.29	1.28	1.27	1.25	1.24
57.9	1.58	1.57	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.43	1.42	1.41	1.39	1.38	1.37	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26
58.3	1.60	1.59	1.57	1.56	1.55	1.53	1.52	1.51	1.50	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.36	1.35	1.34	1.32	1.31	1.30	1.28
58.7	1.62	1.61	1.60	1.58	1.57	1.56	1.54	1.53	1.52	1.50	1.49	1.48	1.46	1.45	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.35	1.33	1.32	1.31
59.1	1.65	1.63	1.62	1.61	1.59	1.58	1.57	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.43	1.42	1.41	1.39	1.38	1.37	1.35	1.34	1.33
59.4	1.67	1.65	1.64	1.63	1.61	1.60	1.59	1.57	1.56	1.55	1.54	1.52	1.51	1.50	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39	1.38	1.36	1.35
59.8	1.69	1.68	1.66	1.65	1.64	1.62	1.61	1.60	1.58	1.57	1.56	1.54	1.53	1.52	1.50	1.49	1.48	1.47	1.45	1.44	1.43	1.41	1.40	1.39	1.37
60.2	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.59	1.58	1.57	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46	1.45	1.43	1.42	1.41	1.40
60.6	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.48	1.47	1.46	1.44	1.43	1.42
61.0	1.76	1.74	1.73	1.72	1.70	1.69	1.68	1.66	1.65	1.64	1.62	1.61	1.60	1.58	1.57	1.56	1.55	1.53	1.52	1.51	1.49	1.48	1.47	1.45	1.44
61.4	1.78	1.77	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.59	1.58	1.57	1.55	1.54	1.53	1.51	1.50	1.49	1.47	1.46
61.8	1.80	1.79	1.77	1.76	1.75	1.73	1.72	1.71	1.69	1.68	1.67	1.66	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.48
62.2	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.70	1.69	1.68	1.66	1.65	1.64	1.62	1.61	1.60	1.59	1.57	1.56	1.55	1.53	1.52	1.51
62.6	1.84	1.83	1.82	1.81	1.79	1.78	1.77	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.59	1.58	1.57	1.55	1.54	1.53
63.0	1.87	1.85	1.84	1.83	1.81	1.80	1.79	1.77	1.76	1.75	1.74	1.72	1.71	1.70	1.68	1.67	1.66	1.64	1.63	1.62	1.60	1.59	1.58	1.56	1.55
63.4	1.89	1.88	1.86	1.85	1.84	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.70	1.69	1.68	1.67	1.65	1.64	1.63	1.61	1.60	1.59	1.57
63.8	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.79	1.78	1.77	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.65	1.63	1.62	1.61	1.59
64.2	1.93	1.92	1.91	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.72	1.71	1.70	1.68	1.67	1.66	1.64	1.63	1.62
64.6	1.96	1.94	1.93	1.92	1.90	1.89	1.88	1.86	1.85	1.84	1.82	1.81	1.80	1.78	1.77	1.76	1.74	1.73	1.72	1.71	1.69	1.68	1.67	1.65	1.64
65.0	1.98	1.97	1.95	1.94	1.93	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.79	1.78	1.77	1.75	1.74	1.73	1.71	1.70	1.69	1.67	1.66
65.4	2.00	1.99	1.97	1.96	1.95	1.93	1.92	1.91	1.89	1.88	1.87	1.86	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75	1.74	1.72	1.71	1.70	1.68
65.7	2.02	2.01	2.00	1.98	1.97	1.96	1.94	1.93	1.92	1.90	1.89	1.88	1.86	1.85	1.84	1.82	1.81	1.80	1.78	1.77	1.76	1.75	1.73	1.72	1.71
66.1	2.04	2.03	2.02	2.01	1.99	1.98	1.97	1.95	1.94	1.93	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.79	1.78	1.77	1.75	1.74	1.73
66.5	2.07	2.05	2.04	2.03	2.01	2.00	1.99	1.97	1.96	1.95	1.94	1.92	1.91	1.90	1.88	1.87	1.86	1.84	1.83	1.82	1.80	1.79	1.78	1.76	1.75
66.9	2.09	2.08	2.06	2.05	2.04	2.02	2.01	2.00	1.98	1.97	1.96	1.94	1.93	1.92	1.90	1.89	1.88	1.86	1.85	1.84	1.83	1.81	1.80	1.79	1.77
67.3	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	1.99	1.98	1.97	1.95	1.94	1.93	1.91	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.81	1.79
67.7	2.13	2.12	2.11	2.09	2.08	2.07	2.05	2.04	2.03	2.01	2.00	1.99	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.88	1.87	1.86	1.84	1.83	1.82
68.1	2.16	2.14	2.13	2.12	2.10	2.09	2.08	2.06	2.05	2.04	2.02	2.01	2.00	1.98	1.97	1.96	1.94	1.93	1.92	1.91	1.89	1.88	1.87	1.85	1.84
68.5	2.18	2.16	2.15	2.14	2.13	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	1.99	1.98	1.97	1.95	1.94	1.93	1.91	1.90	1.89	1.87	1.86
68.9	2.20	2.19	2.17	2.16	2.15	2.13	2.12	2.11	2.09	2.08	2.07	2.05	2.04	2.03	2.02	2.00	1.99	1.98	1.96	1.95	1.94	1.92	1.91	1.90	1.88
69.3	2.22	2.21	2.20	2.18	2.17	2.16	2.14	2.13	2.12	2.10	2.09	2.08	2.06	2.05	2.04	2.02	2.01	2.00	1.98	1.97	1.96	1.95	1.93	1.92	1.91
69.7	2.24	2.23	2.22	2.21	2.19	2.18	2.17	2.15	2.14	2.13	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	1.99	1.98	1.97	1.95	1.94	1.93
70.1	2.27	2.25	2.24	2.23	2.21	2.20	2.19	2.17	2.16	2.15	2.13	2.12	2.11	2.10	2.08	2.07	2.06	2.04	2.03	2.02	2.00	1.99	1.98	1.96	1.95
70.5	2.29	2.28	2.26	2.25	2.24	2.22	2.21	2.20	2.18	2.17	2.16	2.14	2.13	2.12	2.10	2.09	2.08	2.06	2.05	2.04	2.03	2.01	2.00	1.99	1.97
70.9	2.31	2.30	2.28	2.27	2.26	2.25	2.23	2.22	2.21	2.19	2.18	2.17	2.15	2.14	2.13	2.11	2.10	2.09	2.07	2.06	2.05	2.03	2.02	2.01	1.99
71.3	2.33	2.32	2.31	2.29	2.28	2.27	2.25	2.24	2.23	2.21	2.20	2.19	2.18	2.16	2.15	2.14	2.12	2.11	2.10	2.08	2.07	2.06	2.04	2.03	2.02
71.7	2.36	2.34	2.33	2.32	2.30	2.29	2.28	2.26	2.25	2.24	2.22	2.21	2.20	2.18	2.17	2.16	2.14	2.13	2.12	2.10	2.09	2.08	2.07	2.05	2.04
72.0	2.38	2.36	2.35	2.34	2.33	2.31	2.30	2.29	2.27	2.26	2.25	2.23	2.22	2.21	2.19	2.18	2.17	2.15	2.14	2.13	2.11	2.10	2.09	2.07	2.06
72.4	2.40	2.39	2.37	2.36	2.35	2.33	2.32	2.31	2.29	2.28	2.27	2.25	2.24	2.23	2.22	2.20	2.19	2.18	2.16	2.15	2.14	2.12	2.11	2.10	2.08
72.8	2.42	2.41	2.40	2.38	2.37	2.36	2.34	2.33	2.32	2.30	2.29	2.28	2.26	2.25	2.24	2.22	2.21	2.20	2.18	2.17	2.16	2.15	2.13	2.12	2.11
73.2	2.44	2.43	2.42	2.40	2.39	2.38	2.37	2.35	2.34	2.33	2.31	2.30	2.29	2.27	2.26	2.25	2.23	2.22	2.21	2.19	2.18	2.17	2.15	2.14	2.13
73.6	2.47	2.45	2.44	2.43	2.41	2.40	2.39	2.37	2.36	2.35	2.33	2.32	2.31	2.30	2.28	2.27	2.26	2.24	2.23	2.22	2.20	2.19	2.18	2.16	2.15
74.0	2.49	2.48	2.46	2.45	2.44	2.42	2.41	2.40	2.38	2.37	2.36	2.34	2.33	2.32	2.30	2.29	2.28	2.26	2.25	2.24	2.22	2.21	2.20	2.19	2.17
74.4	2.51	2.50	2.48	2.47	2.46	2.44	2.43	2.42	2.41	2.39	2.38	2.37	2.35	2.34	2.33	2.31	2.30	2.29	2.27	2.26	2.25	2.23	2.22	2.21	2.19
74.8	2.53	2.52	2.51	2.49	2.48	2.47	2.45	2.44	2.43	2.41	2.40	2.39	2.37	2.36	2.35	2.34	2.32	2.31	2.30	2.28	2.27	2.26	2.24	2.23	2.22

PREDICTION EQUATIONS FOR MVV MALES * 60% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
59.1	74.	75.	76.	70.	69.	69.	68.	68.	67.	66.	66.	65.	64.	64.	63.	62.	62.	61.	60.	60.	59.	58.	58.	57.	57.
59.4	75.	76.	77.	71.	71.	70.	69.	69.	68.	67.	67.	66.	66.	65.	64.	64.	63.	62.	62.	61.	60.	60.	59.	58.	58.
59.8	76.	77.	78.	73.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.	64.	63.	62.	62.	61.	60.	60.	59.
60.2	77.	78.	79.	74.	73.	73.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.	64.	63.	62.	62.	61.	60.
60.6	78.	79.	81.	75.	74.	74.	73.	73.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.	63.	63.	62.	62.
61.0	79.	81.	82.	76.	76.	75.	74.	74.	73.	72.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.	63.	63.
61.4	81.	82.	83.	78.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.
61.8	82.	83.	84.	79.	78.	78.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.	68.	68.	67.	67.	66.	65.
62.2	83.	84.	85.	80.	79.	79.	78.	78.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.	68.	68.	67.	67.
62.6	84.	85.	86.	81.	81.	80.	79.	79.	78.	77.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.	68.	68.
63.0	85.	86.	87.	83.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.
63.4	86.	87.	88.	84.	83.	83.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.	73.	73.	72.	72.	71.	70.
63.8	87.	88.	89.	85.	84.	84.	83.	83.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.	73.	73.	72.	71.
64.2	88.	89.	90.	86.	86.	85.	84.	84.	83.	82.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.	73.	73.
64.6	89.	91.	92.	88.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.
65.0	91.	92.	93.	89.	88.	88.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	78.	78.	77.	77.	76.	75.
65.4	92.	93.	94.	90.	89.	89.	88.	88.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	78.	78.	77.	76.
65.7	93.	94.	95.	91.	91.	90.	89.	89.	88.	87.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	78.	78.
66.1	94.	95.	96.	93.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.
66.5	95.	96.	97.	94.	93.	93.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	83.	83.	82.	82.	81.	80.
66.9	96.	97.	98.	95.	94.	94.	93.	92.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	83.	83.	82.	81.
67.3	97.	98.	99.	96.	96.	95.	94.	94.	93.	92.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	83.	83.
67.7	98.	99.	100.	98.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.
68.1	99.	100.	102.	99.	98.	98.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	88.	88.	87.	87.	86.	85.
68.5	100.	102.	103.	100.	99.	99.	98.	97.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	88.	88.	87.	86.
68.9	102.	103.	104.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	88.	88.
69.3	103.	104.	105.	103.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.
69.7	104.	105.	106.	104.	103.	103.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	93.	93.	92.	92.	91.	90.
70.1	105.	106.	107.	105.	104.	104.	103.	102.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	93.	93.	92.	91.
70.5	106.	107.	108.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	93.	93.
70.9	107.	108.	109.	108.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	98.	98.	97.	97.	96.	95.	95.	94.
71.3	108.	109.	110.	109.	108.	108.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	98.	98.	97.	97.	96.	95.
71.7	109.	110.	111.	110.	109.	109.	108.	107.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	98.	98.	97.	96.
72.0	110.	111.	113.	111.	111.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	98.	98.
72.4	112.	113.	114.	113.	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	103.	103.	102.	102.	101.	100.	100.	99.
72.8	113.	114.	115.	114.	113.	113.	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	103.	103.	102.	101.	101.	100.
73.2	114.	115.	116.	115.	114.	114.	113.	112.	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	103.	103.	102.	101.
73.6	115.	116.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	103.	103.
74.0	116.	117.	118.	118.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	108.	108.	107.	107.	106.	105.	105.	104.
74.4	117.	118.	119.	119.	118.	118.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	108.	108.	107.	106.	106.	105.
74.8	118.	119.	120.	120.	119.	119.	118.	117.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	108.	108.	107.	106.
75.2	119.	120.	121.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	108.	108.
75.6	120.	121.	122.	123.	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.	112.	112.	111.	110.	110.	109.
76.0	121.	123.	124.	124.	123.	122.	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.	112.	111.	111.	110.
76.4	123.	124.	125.	125.	124.	124.	123.	122.	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.	112.	111.
76.8	124.	125.	126.	126.	126.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.
77.2	125.	126.	127.	128.	127.	126.	126.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	118.	118.	117.	117.	116.	115.	115.	114.
77.6	126.	127.	128.	129.	128.	127.	127.	126.	126.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	118.	118.	117.	116.	116.	115.
78.0	127.	128.	129.	130.	129.	129.	128.	127.	127.	126.	125.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	118.	118.	117.	116.
78.3	128.	129.	130.	131.	131.	130.	129.	129.	128.	127.	127.	126.	125.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	118.	118.
78.7	129.	130.	131.	133.	132.	131.	131.	130.	129.	129.	128.	127.	127.	126.	125.	125.	124.	123.	123.	122.	122.	121.	120.	120.	119.
79.1	130.	131.	132.	134.	133.	132.	132.	131.	131.	130.	129.	129.	128.	127.	127.	126.	125.	125.	124.	123.	123.	122.	121.	121.	120.
79.5	131.	132.	134.	135.	134.	134.	133.	132.	132.	131.	130.	130.	129.	129.	128.	127.	127.	126.	125.	125.	124.	123.	123.	122.	121.
79.9	132.	134.	135.	136.	136.	135.	134.	134.	133.	132.	132.	131.	130.	130.	129.	128.	128.	127.	127.	126.	125.	125.	124.	123.	123.
80.3	134.	135.	136.	138.	137.	136.	136.	135.	134.	134.	133.	132.	132.	131.	130.	130.	129.	128.	128.	127.	127.	126.	125.	125.	124.
80.7	135.	136.	137.	139.	138.	137.	137.	136.	136.	135.	134.	134.	133.	132.	132.	131.	130.	130.	129.	128.	128.	127.	126.	126.	125.
81.1	136.	137.	138.	140.	139.	139.	138.	137.	137.	136.	135.	135.	134.	134.	133.	132.	132.	131.	130.	130.	129.	128.	128.	127.	126.
81.5	137.	138.	139.	141.	141.	140.	139.	139.	138.	137.	137.	136.	135.	135.	134.	133.	133.	132.	132.	131.	130.	130.	129.	128.	128.
81.9	138.	139.	140.	143.	142.	141.	141.	140.	139.	139.	138.	137.	137.	136.	135.	135.	134.	133.	133.	132.	131.	131.	130.	130.	129.
82.3	139.	140.	141.	144.	143.	142.	142.	141.	141.	140.	139.	139.	138.	137.	137.	136.	135.	135.	134.	133.	133.	132.	131.	131.	130.
82.7	140.	141.	142.	145.	144.	144.	143.	142.	142.	141.	140.	140.	139.	139.	138.	137.	137.	136.	135.	135.	134.	133.	133.	132.	131.

PREDICTION EQUATIONS FOR MVV — MALES — * 60% OF PREDICTED **

AGE (YEARS)

HEIGHT (IN)	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
59.1	56.	55.	55.	54.	53.	53.	52.	51.	51.	50.	49.	49.	48.	47.	47.	46.	46.	45.	44.	44.	43.	42.	42.	41.	40.
59.4	57.	56.	56.	55.	55.	54.	53.	53.	52.	51.	51.	50.	49.	49.	48.	47.	47.	46.	45.	45.	44.	44.	43.	42.	42.
59.8	58.	58.	57.	56.	56.	55.	54.	54.	53.	53.	52.	51.	51.	50.	49.	49.	48.	47.	47.	46.	45.	45.	44.	43.	43.
60.2	60.	59.	58.	58.	57.	56.	56.	55.	54.	54.	53.	52.	52.	51.	51.	50.	49.	49.	48.	47.	47.	46.	45.	45.	44.
60.6	61.	60.	60.	59.	58.	58.	57.	56.	56.	55.	54.	54.	53.	52.	52.	51.	50.	50.	49.	49.	48.	47.	47.	46.	45.
61.0	62.	61.	61.	60.	60.	59.	58.	58.	57.	56.	56.	55.	54.	54.	53.	52.	52.	51.	50.	50.	49.	49.	48.	47.	47.
61.4	63.	63.	62.	61.	61.	60.	59.	59.	58.	58.	57.	56.	56.	55.	54.	54.	53.	52.	52.	51.	50.	50.	49.	48.	48.
61.8	65.	64.	63.	63.	62.	61.	61.	60.	59.	59.	58.	57.	57.	56.	56.	55.	54.	54.	53.	52.	52.	51.	50.	50.	49.
62.2	66.	65.	65.	64.	63.	63.	62.	61.	61.	60.	59.	59.	58.	57.	57.	56.	55.	55.	54.	54.	53.	52.	52.	51.	50.
62.6	67.	66.	66.	65.	65.	64.	63.	63.	62.	61.	61.	60.	59.	59.	58.	57.	57.	56.	55.	55.	54.	53.	53.	52.	52.
63.0	68.	68.	67.	66.	66.	65.	64.	64.	63.	63.	62.	61.	61.	60.	59.	59.	58.	57.	57.	56.	55.	55.	54.	53.	53.
63.4	70.	69.	68.	68.	67.	66.	66.	65.	64.	64.	63.	62.	62.	61.	61.	60.	59.	59.	58.	57.	57.	56.	55.	55.	54.
63.8	71.	70.	70.	69.	68.	68.	67.	66.	66.	65.	64.	64.	63.	62.	62.	61.	60.	60.	59.	59.	58.	57.	57.	56.	55.
64.2	72.	71.	71.	70.	70.	69.	68.	68.	67.	66.	66.	65.	64.	64.	63.	62.	62.	61.	60.	60.	59.	58.	58.	57.	57.
64.6	73.	73.	72.	71.	71.	70.	69.	69.	68.	68.	67.	66.	66.	65.	64.	64.	63.	62.	62.	61.	60.	60.	59.	58.	58.
65.0	75.	74.	73.	73.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	66.	65.	64.	64.	63.	62.	62.	61.	60.	60.	59.
65.4	76.	75.	75.	74.	73.	73.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.	64.	63.	62.	62.	61.	60.
65.7	77.	76.	76.	75.	74.	74.	73.	73.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.	63.	63.	62.	62.
66.1	78.	78.	77.	76.	76.	75.	74.	74.	73.	73.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.	63.	63.
66.5	80.	79.	78.	78.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	71.	70.	69.	69.	68.	67.	67.	66.	65.	65.	64.
66.9	81.	80.	80.	79.	78.	78.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.	69.	68.	67.	67.	66.	65.
67.3	82.	81.	81.	80.	79.	79.	78.	78.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.	68.	68.	67.	67.
67.7	83.	83.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.	68.	68.
68.1	85.	84.	83.	83.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	76.	75.	74.	74.	73.	72.	72.	71.	70.	70.	69.
68.5	86.	85.	85.	84.	83.	83.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.	74.	73.	72.	72.	71.	70.
68.9	87.	86.	86.	85.	84.	84.	83.	83.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.	73.	73.	72.	72.
69.3	88.	88.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	81.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.	73.	73.
69.7	90.	89.	88.	88.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	79.	78.	77.	77.	76.	75.	75.	74.
70.1	91.	90.	90.	89.	88.	88.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	79.	78.	77.	77.	76.	75.
70.5	92.	91.	91.	90.	89.	89.	88.	88.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	78.	78.	77.	77.
70.9	93.	93.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	86.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.	78.	78.
71.3	95.	94.	93.	93.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	84.	83.	82.	82.	81.	80.	80.	79.
71.7	96.	95.	95.	94.	93.	93.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	83.	83.	82.	82.	81.	80.
72.0	97.	96.	96.	95.	94.	94.	93.	93.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	83.	83.	82.	82.
72.4	98.	98.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	91.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.	83.	83.
72.8	100.	99.	98.	98.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	89.	88.	87.	87.	86.	85.	85.	84.
73.2	101.	100.	100.	99.	98.	98.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	88.	88.	87.	87.	86.	85.
73.6	102.	101.	101.	100.	99.	99.	98.	98.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	88.	88.	87.	86.
74.0	103.	103.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	96.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.	88.	88.
74.4	105.	104.	103.	103.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	94.	93.	92.	92.	91.	90.	90.	89.
74.8	106.	105.	104.	104.	103.	103.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	93.	93.	92.	92.	91.	90.
75.2	107.	106.	106.	105.	104.	104.	103.	103.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	93.	93.	92.	91.
75.6	108.	108.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	101.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.	93.	93.
76.0	110.	109.	108.	108.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	99.	98.	97.	97.	96.	95.	95.	94.
76.4	111.	110.	109.	109.	108.	108.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	98.	98.	97.	97.	96.	95.
76.8	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	98.	98.	97.	96.
77.2	113.	113.	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	106.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.	98.	98.
77.6	115.	114.	113.	113.	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	104.	103.	102.	102.	101.	100.	100.	99.
78.0	116.	115.	114.	114.	113.	113.	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	103.	103.	102.	102.	101.	100.
78.3	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	111.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	103.	103.	102.	101.
78.7	118.	118.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.	103.	103.
79.1	120.	119.	118.	118.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	109.	108.	107.	107.	106.	105.	105.	104.
79.5	121.	120.	119.	119.	118.	118.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	108.	108.	107.	107.	106.	105.
79.9	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	116.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	108.	108.	107.	106.
80.3	123.	123.	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	114.	113.	112.	112.	111.	110.	110.	109.	108.	108.
80.7	125.	124.	123.	123.	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.	112.	112.	111.	110.	110.	109.
81.1	126.	125.	124.	124.	123.	123.	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.	112.	112.	111.	110.
81.5	127.	126.	126.	125.	124.	124.	123.	122.	122.	121.	121.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.	112.	111.
81.9	128.	128.	127.	126.	126.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	119.	118.	117.	117.	116.	115.	115.	114.	113.	113.
82.3	130.	129.	128.	128.	127.	126.	126.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	118.	118.	117.	117.	116.	115.	115.	114.
82.7	131.	130.	129.	129.	128.	128.	127.	126.	126.	125.	124.	124.	123.	122.	122.	121.	120.	120.	119.	118.	118.	117.	116.	116.	115.

PREDICTION EQUATIONS FOR MVP FEMALES * 60% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
51.2	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.
51.6	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.
52.0	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.
52.4	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.
52.8	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.
53.1	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.
53.5	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.
53.9	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.
54.3	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.
54.7	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.
55.1	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	50.	50.	49.	49.	48.
55.5	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.
55.9	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.
56.3	63.	62.	62.	61.	61.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.
56.7	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.
57.1	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.
57.5	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.
57.9	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.
58.3	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.
58.7	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.
59.1	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.
59.4	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.
59.8	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.
60.2	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.
60.6	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.
61.0	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.
61.4	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.
61.8	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	59.
62.2	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.
62.6	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.
63.0	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.
63.4	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.
63.8	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.
64.2	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.
64.6	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.
65.0	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.
65.4	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.
65.7	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	68.	68.	67.	67.	66.	66.
66.1	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.
66.5	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.
66.9	80.	80.	79.	79.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.
67.3	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.
67.7	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.
68.1	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.
68.5	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.
68.9	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.
69.3	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.
69.7	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.
70.1	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.
70.5	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.
70.9	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.
71.3	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.
71.7	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.
72.0	88.	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.	77.	77.	76.
72.4	89.	89.	88.	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	77.	77.
72.8	90.	89.	89.	88.	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.	78.
73.2	90.	90.	89.	89.	88.	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.	78.
73.6	91.	91.	90.	90.	89.	89.	88.	88.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.	79.	79.
74.0	92.	91.	91.	90.	90.	89.	89.	88.	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.	80.
74.4	92.	92.	91.	91.	90.	90.	89.	89.	88.	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.	80.
74.8	93.	92.	92.	91.	91.	90.	90.	89.	89.	88.	88.	87.	87.	86.	86.	85.	85.	84.	84.	83.	83.	82.	82.	81.	81.

PREDICTION EQUATIONS FOR MVV FEMALES * 60% OF PREDICTED **

HEIGHT (IN)	AGE (YEARS) 47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
51.2	41.	41.	40.	39.	39.	38.	38.	37.	37.	37.	36.	36.	35.	35.	34.	34.	33.	33.	32.	32.	31.	31.	30.	30.	29.
51.5	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.	34.	34.	33.	33.	32.	32.	31.	31.	30.
52.0	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.	34.	34.	33.	33.	32.	32.	31.	31.
52.4	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.	34.	34.	33.	33.	32.	32.	31.
52.8	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.	34.	34.	33.	32.	32.
53.3	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.	34.	34.	33.	33.
53.9	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.	34.	34.	33.
54.3	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.	34.	34.
54.7	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.	35.
55.1	48.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.	35.
55.5	49.	48.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.	36.	36.
55.9	49.	49.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.	37.	37.
56.3	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.	38.	38.
56.7	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.	39.
57.1	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.	39.
57.6	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.	40.	40.
58.3	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.	41.	41.
58.7	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.	42.
59.1	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.	43.	42.
59.4	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.	43.
59.8	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.	44.
60.2	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.	45.	44.
60.6	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.	45.
61.0	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.	46.
61.4	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.	46.
61.8	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.	47.	47.
62.2	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.	48.
62.6	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.	48.
63.0	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.	49.	49.
63.4	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.	50.
63.8	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.	50.
64.2	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.	51.	51.
64.6	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.	52.
65.0	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.	52.
65.4	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.	53.
65.7	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.	53.
66.1	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.	54.	54.
66.5	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.	55.
66.9	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.	55.
67.3	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.	56.	56.
67.7	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.	57.
68.1	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.	57.
68.5	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.	58.	58.
68.9	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.	59.
69.3	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.	59.
69.7	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.	60.	60.
70.1	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.	61.
70.5	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.	61.
70.9	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.	62.	62.
71.3	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.	63.
71.7	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.	63.
72.0	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.	64.
72.4	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.	64.
72.8	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.	65.	65.
73.2	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.	66.
73.6	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.	66.
74.0	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.	67.	67.
74.4	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.	68.
74.8	80.	80.	79.	79.	78.	78.	77.	77.	76.	76.	75.	75.	74.	74.	73.	73.	72.	72.	71.	71.	70.	70.	69.	69.	68.

APPENDIX C TO PART 718—BLOOD-GAS TABLES

The following tables set forth the values to be applied in determining whether total disability may be established in accordance with §§ 718.204(b)(2)(ii) and 718.305(a), (c). The values contained in the tables are indicative of impairment only. They do not establish a degree of disability except as provided in §§ 718.204(b)(2)(ii) and 718.305(a), (c) of this subchapter, nor do they establish standards for determining normal alveolar gas exchange values for any particular individual. Tests shall not be performed during or soon after an acute respiratory or cardiac illness. A miner who meets the following medical specifications shall be found to be totally disabled, in the absence of rebutting evidence, if the values specified in one of the following tables are met:

(1) For arterial blood-gas studies performed at test sites up to 2,999 feet above sea level:

Arterial PCO2 (mm Hg)	Arterial PO2 equal to or less than (mm Hg)
25 or below	75
26	74
27	73
28	72
29	71
30	70
31	69
32	68
33	67
34	66
35	65
36	64
37	63
38	62
39	61
40–49	60
Above 50	(1)

[1] Any value.

(2) For arterial blood-gas studies performed at test sites 3,000 to 5,999 feet above sea level:

Arterial PCO2 (mm Hg)	Arterial PO2 equal to or less than (mm Hg)
25 or below	70
26	69
27	68
28	67
29	66
30	65
31	64
32	63
33	62
34	61
35	60
36	59
37	58
38	57
39	56
40–49	55
Above 50	(2)

[2] Any value.

(3) For arterial blood-gas studies performed at test sites 6,000 feet or more above sea level:

Arterial PCO2 (mm Hg)	Arterial PO2 equal to or less than (mm Hg)
25 or below	65
26	64
27	63
28	62
29	61
30	60
31	59
32	58
33	57
34	56
35	55
36	54
37	53
38	52
39	51
40–49	50
Above 50	(3)

[3] Any value.

[65 FR 80045, Dec. 20, 2000]

PART 722—CRITERIA FOR DETERMINING WHETHER STATE WORKERS' COMPENSATION LAWS PROVIDE ADEQUATE COVERAGE FOR PNEUMOCONIOSIS AND LISTING OF APPROVED STATE LAWS

Sec.
722.1 Purpose.
722.2 Definitions.
722.3 General criteria; inclusion in and removal from the Secretary's list.
722.4 The Secretary's list.

AUTHORITY: 5 U.S.C. 301, Reorganization Plan No. 6 of 1950, 15 FR 3174, 30 U.S.C. 901 *et seq.*, 921, 932, 936; 33 U.S.C. 901 *et seq.*, Secretary's Order 7–87, 52 FR 48466, Employment Standards Order No. 90–02.

SOURCE: 65 FR 80053, Dec. 20, 2000, unless otherwise noted.

§ 722.1 Purpose.

Section 421 of the Black Lung Benefits Act provides that a claim for benefits based on the total disability or death of a coal miner due to pneumoconiosis must be filed under a State workers' compensation law where such law provides adequate coverage for pneumoconiosis. A State workers' compensation law may be deemed to provide adequate coverage only when it is included on a list of such laws maintained by the Secretary. The purpose of this part is to set forth the procedures and criteria for inclusion on that list, and to provide that list.

§ 722.2 Definitions.

(a) The definitions and use of terms contained in subpart A of part 725 of this title shall be applicable to this part.

(b) For purposes of this part, the following definitions apply:

(1) *State agency* means, with respect to any State, the agency, department or officer designated by the workers' compensation law of the State to administer such law. In any case in which more than one agency participates in the administration of a State workers' compensation law, the Governor of the State may designate which of the agencies shall be the State agency for purposes of this part.

(2) *The Secretary's list* means the list published by the Secretary of Labor in the FEDERAL REGISTER (see § 722.4) containing the names of those States which have in effect a workers' compensation law which provides adequate coverage for death or total disability due to pneumoconiosis.

§ 722.3 General criteria; inclusion in and removal from the Secretary's list.

(a) The Governor of any State or any duly authorized State agency may, at any time, request that the Secretary include such State's workers' compensation law on his list of those State workers' compensation laws providing adequate coverage for total disability or death due to pneumoconiosis. Each such request shall include a copy of the State workers' compensation law and any other pertinent State laws; a copy of any regulations, either proposed or promulgated, implementing such laws; and a copy of any relevant administrative or court decision interpreting such laws or regulations, or, if such decisions are published in a readily available report, a citation to such decision.

(b) Upon receipt of a request that a State be included on the Secretary's list, the Secretary shall include the State on the list if he finds that the State's workers' compensation law guarantees the payment of monthly and medical benefits to all persons who would be entitled to such benefits under the Black Lung Benefits Act at the time of the request, at a rate no less than that provided by the Black Lung Benefits Act. The criteria used by the Secretary in making such determination shall include, but shall not be limited to, the criteria set forth in section 421(b)(2) of the Act.

(c) The Secretary may require each State included on the list to submit reports detailing the extent to which the State's workers' compensation laws, as reflected by statute, regulation, or administrative or court decision, continues to meet the requirements of paragraph (b) of this section. If the Secretary concludes that the State's workers' compensation law does not provide adequate coverage at any time, either because of changes to the State workers' compensation law or the Black Lung Benefits Act, he shall remove the State from the Secretary's list after providing the State with notice of such removal and an opportunity to be heard.

§ 722.4 The Secretary's list.

(a) The Secretary has determined that publication of the Secretary's list in the Code of Federal Regulations is appropriate. Accordingly, in addition to its publication in the FEDERAL REGISTER as required by section 421 of the Black Lung Benefits Act, the list shall also appear in paragraph (b) of this section.

(b) Upon review of all requests filed with the Secretary under section 421 of the Black Lung Benefits Act and this part, and examination of the workers' compensation laws of the States making such requests, the Secretary has determined that the workers' compensation law of each of the following listed States, for the period from the date shown in the list until such date as the Secretary may make a contrary determination, provides adequate coverage for pneumoconiosis.

State	Period commencing
None	

PART 725—CLAIMS FOR BENEFITS UNDER PART C OF TITLE IV OF THE FEDERAL MINE SAFETY AND HEALTH ACT, AS AMENDED

Subpart A—General

Sec.
725.1 Statutory provisions.
725.2 Purpose and applicability of this part.
725.3 Contents of this part.
725.4 Applicability of other parts in this title.
725.101 Definitions and use of terms.

725.102 Disclosure of program information.
725.103 Burden of proof.

Subpart B—Persons Entitled to Benefits, Conditions, and Duration of Entitlement

725.201 Who is entitled to benefits; contents of this subpart.

CONDITIONS AND DURATION OF ENTITLEMENT: MINER

725.202 Miner defined; conditions of entitlement, miner.
725.203 Duration and cessation of entitlement, miner.

CONDITIONS AND DURATION OF ENTITLEMENT: MINER'S DEPENDENTS (AUGMENTED BENEFITS)

725.204 Determination of relationship; spouse.
725.205 Determination of dependency; spouse.
725.206 Determination of relationship; divorced spouse.
725.207 Determination of dependency; divorced spouse.
725.208 Determination of relationship; child.
725.209 Determination of dependency; child.
725.210 Duration of augmented benefits.
725.211 Time of determination of relationship and dependency of spouse or child for purposes of augmentation of benefits.

CONDITIONS AND DURATION OF ENTITLEMENT: MINER'S SURVIVORS

725.212 Conditions of entitlement; surviving spouse or surviving divorced spouse.
725.213 Duration of entitlement; surviving spouse or surviving divorced spouse.
725.214 Determination of relationship; surviving spouse.
725.215 Determination of dependency; surviving spouse.
725.216 Determination of relationship; surviving divorced spouse.
725.217 Determination of dependency; surviving divorced spouse.
725.218 Conditions of entitlement; child.
725.219 Duration of entitlement; child.
725.220 Determination of relationship; child.
725.221 Determination of dependency; child.
725.222 Conditions of entitlement; parent, brother or sister.
725.223 Duration of entitlement; parent, brother or sister.
725.224 Determination of relationship; parent, brother or sister.
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AUTHORITY: 5 U.S.C. 301, Reorganization Plan No. 6 of 1950, 15 FR 3174, 30 U.S.C. 901 *et seq.*, 921, 932, 936; 33 U.S.C. 901 *et seq.*, 42 U.S.C. 405, Secretary's Order 7–87, 52 FR 48466, Employment Standards Order No. 90–02.

SOURCE: 65 FR 80054, Dec. 20, 2000, unless otherwise noted.

Subpart A—General

§ 725.1 Statutory provisions.

(a) *General.* Title IV of the Federal Mine Safety and Health Act of 1977, as amended by the Black Lung Benefits Reform Act of 1977, the Black Lung Benefits Revenue Act of 1977, the Black Lung Benefits Revenue Act of 1981 and the Black Lung Benefits Amendments of 1981, provides for the payment of benefits to a coal miner who is totally disabled due to pneumoconiosis (black lung disease) and to certain survivors of a miner who dies due to pneumoconiosis. For claims filed prior to January 1, 1982, certain survivors could receive benefits if the miner was totally (or for claims filed prior to June 30, 1982, in accordance with section 411(c)(5) of the Act, partially) disabled due to pneumoconiosis, or if the miner died due to pneumoconiosis.

(b) *Part B.* Part B of title IV of the Act provided that all claims filed between December 30, 1969, and June 30, 1973, are to be filed with, processed, and paid by the Secretary of Health, Education, and Welfare through the Social Security Administration; claims filed by the survivor of a miner before January 1, 1974, or within 6 months of the miner's death if death occurred before January 1, 1974, and claims filed by the survivor of a miner who was receiving benefits under part B of title IV of the Act at the time of death, if filed within 6 months of the miner's death, are also adjudicated and paid by the Social Security Administration.

(c) *Section 415.* Claims filed by a miner between July 1 and December 31, 1973, are adjudicated and paid under section 415. Section 415 provides that a claim filed between the appropriate dates shall be filed with and adjudicated by the Secretary of Labor under certain incorporated provisions of the Longshoremen's and Harbor Workers' Compensation Act (33 U.S.C. 901 *et seq.*). A claim approved under section 415 is paid under part B of title IV of the Act for periods of eligibility occurring between July 1 and December 31, 1973, by the Secretary of Labor and for periods of eligibility thereafter, is paid by a coal mine operator which is determined liable for the claim or the Black Lung Disability Trust Fund if no operator is identified or if the miner's last coal mine employment terminated prior to January 1, 1970. An operator which may be found liable for a section 415 claim is notified of the claim and allowed to participate fully in the adjudication of such claim. A claim filed under section 415 is for all purposes considered as if it were a part C claim (see paragraph (d) of this section) and

the provisions of part C of title IV of the Act are fully applicable to a section 415 claim except as is otherwise provided in section 415.

(d) *Part C.* Claims filed by a miner or survivor on or after January 1, 1974, are filed, adjudicated, and paid under the provisions of part C of title IV of the Act. Part C requires that a claim filed on or after January 1, 1974, shall be filed under an applicable approved State workers' compensation law, or if no such law has been approved by the Secretary of Labor, the claim may be filed with the Secretary of Labor under section 422 of the Act. Claims filed with the Secretary of Labor under part C are processed and adjudicated by the Secretary and paid by a coal mine operator. If the miner's last coal mine employment terminated before January 1, 1970, or if no responsible operator can be identified, benefits are paid by the Black Lung Disability Trust Fund. Claims adjudicated under part C are subject to certain incorporated provisions of the Longshoremen's and Harbor Workers' Compensation Act.

(e) *Section 435.* Section 435 of the Act affords each person who filed a claim for benefits under part B, section 415, or part C, and whose claim had been denied or was still pending as of March 1, 1978, the effective date of the Black Lung Benefits Reform Act of 1977, the right to have his or her claim reviewed on the basis of the 1977 amendments to the Act, and under certain circumstances to submit new evidence in support of the claim.

(f) *Changes made by the Black Lung Benefits Reform Act of 1977.* In addition to those changes which are reflected in paragraphs (a) through (e) of this section, the Black Lung Benefits Reform Act of 1977 contains a number of significant amendments to the Act's standards for determining eligibility for benefits. Among these are:

(1) A provision which clarifies the definition of ''pneumoconiosis'' to include any ''chronic dust disease of the lung and its sequelae, including respiratory and pulmonary impairments, arising out of coal mine employment'';

(2) A provision which defines ''miner'' to include any person who works or has worked in or around a coal mine or coal preparation facility, and in coal mine construction or coal transportation under certain circumstances;

(3) A provision which limits the denial of a claim solely on the basis of employment in a coal mine;

(4) A provision which authorizes the Secretary of Labor to establish standards and develop criteria for determining total disability or death due to pneumoconiosis with respect to a part C claim;

(5) A new presumption which requires the payment of benefits to the survivors of a miner who was employed for 25 or more years in the mines under certain conditions;

(6) Provisions relating to the treatment to be accorded a survivor's affidavit, certain X-ray interpretations, and certain autopsy reports in the development of a claim; and

(7) Other clarifying, procedural, and technical amendments.

(g) *Changes made by the Black Lung Benefits Revenue Act of 1977.* The Black Lung Benefits Revenue Act of 1977 established the Black Lung Disability Trust Fund which is financed by a specified tax imposed upon each ton of coal (except lignite) produced and sold or used in the United States after March 31, 1978. The Secretary of the Treasury is the managing trustee of the fund and benefits are paid from the fund upon the direction of the Secretary of Labor. The fund was made liable for the payment of all claims approved under section 415, part C and section 435 of the Act for all periods of eligibility occurring on or after January 1, 1974, with respect to claims where the miner's last coal mine employment terminated before January 1, 1970, or where individual liability can not be assessed against a coal mine operator due to bankruptcy, insolvency, or the like. The fund was also authorized to pay certain claims which a responsible operator has refused to pay within a reasonable time, and to seek reimbursement from such operator. The purpose of the fund and the Black Lung Benefits Revenue Act of 1977 was to insure that coal mine operators, or the coal industry, will fully bear the cost of black lung disease for the present time and in the future. The Black Lung Benefits Revenue Act of

1977 also contained other provisions relating to the fund and authorized a coal mine operator to establish its own trust fund for the payment of certain claims.

(h) *Changes made by the Black Lung Benefits Amendments of 1981.* In addition to the change reflected in paragraph (a) of this section, the Black Lung Benefits Amendments of 1981 made a number of significant changes in the Act's standards for determining eligibility for benefits and concerning the payment of such benefits. The following changes are all applicable to claims filed on or after January 1, 1982:

(1) The Secretary of Labor may reread any X-ray submitted in support of a claim and may rely upon a second opinion concerning such an X-ray as a means of auditing the validity of the claim;

(2) The rebuttable presumption that the death of a miner with ten or more years employment in the coal mines, who died of a respirable disease, was due to pneumoconiosis is no longer applicable;

(3) The rebuttable presumption that the total disability of a miner with fifteen or more years employment in the coal mines, who has demonstrated a totally disabling respiratory or pulmonary impairment, is due to pneumoconiosis is no longer applicable;

(4) In the case of deceased miners, where no medical or other relevant evidence is available, only affidavits from persons not eligible to receive benefits as a result of the adjudication of the claim will be considered sufficient to establish entitlement to benefits;

(5) Unless the miner was found entitled to benefits as a result of a claim filed prior to January 1, 1982, benefits are payable on survivors' claims filed on and after January 1, 1982, only when the miner's death was due to pneumoconiosis;

(6) Benefits payable under this part are subject to an offset on account of excess earnings by the miner; and

(7) Other technical amendments.

(i) *Changes made by the Black Lung Benefits Revenue Act of 1981.* The Black Lung Benefits Revenue Act of 1981 temporarily doubles the amount of the tax upon coal until the fund shall have repaid all advances received from the United States Treasury and the interest on all such advances. The fund is also made liable for the payment of certain claims previously denied under the 1972 version of the Act and subsequently approved under section 435 and for the reimbursement of operators and insurers for benefits previously paid by them on such claims. With respect to claims filed on or after January 1, 1982, the fund's authorization for the payment of interim benefits is limited to the payment of prospective benefits only. These changes also define the rates of interest to be paid to and by the fund.

(j) *Longshoremen's Act provisions.* The adjudication of claims filed under sections 415, 422 and 435 of the Act is governed by various procedural and other provisions contained in the Longshoremen's and Harbor Workers' Compensation Act (LHWCA), as amended from time to time, which are incorporated within the Act by sections 415 and 422. The incorporated LHWCA provisions are applicable under the Act except as is otherwise provided by the Act or as provided by regulations of the Secretary. Although occupational disease benefits are also payable under the LHWCA, the primary focus of the procedures set forth in that Act is upon a time definite of traumatic injury or death. Because of this and other significant differences between a black lung and longshore claim, it is determined, in accordance with the authority set forth in section 422 of the Act, that certain of the incorporated procedures prescribed by the LHWCA must be altered to fit the circumstances ordinarily confronted in the adjudication of a black lung claim. The changes made are based upon the Department's experience in processing black lung claims since July 1, 1973, and all such changes are specified in this part or part 727 of this subchapter (see § 725.4(d)). No other departure from the incorporated provisions of the LHWCA is intended.

(k) *Social Security Act provisions.* Section 402 of Part A of the Act incorporates certain definitional provisions from the Social Security Act, 42 U.S.C. 301 *et seq.* Section 430 provides that the 1972, 1977 and 1981 amendments to part B of the Act shall also apply to part C

''to the extent appropriate.'' Sections 412 and 413 incorporate various provisions of the Social Security Act into part B of the Act. To the extent appropriate, therefore, these provisions also apply to part C. In certain cases, the Department has varied the terms of the Social Security Act provisions to accommodate the unique needs of the black lung benefits program. Parts of the Longshore and Harbor Workers' Compensation Act are also incorporated into part C. Where the incorporated provisions of the two acts are inconsistent, the Department has exercised its broad regulatory powers to choose the extent to which each incorporation is appropriate. Finally, Section 422(g), contained in part C of the Act, incorporates 42 U.S.C. 403(b)–(l).

§ 725.2 Purpose and applicability of this part.

(a) This part sets forth the procedures to be followed and standards to be applied in filing, processing, adjudicating, and paying claims filed under part C of title IV of the Act.

(b) This part applies to all claims filed under part C of title IV of the Act on or after August 18, 1978 and shall also apply to claims that were pending on August 18, 1978.

(c) The provisions of this part reflect revisions that became effective on January 19, 2001. This part applies to all claims filed after January 19, 2001 and all benefits payments made on such claims. With the exception of the following sections, this part shall also apply to the adjudication of claims that were pending on January 19, 2001 and all benefits payments made on such claims: §§ 725.101(a)(31), 725.204, 725.212(b), 725.213(c), 725.214(d), 725.219(d), 725.309, 725.310, 725.351, 725.360, 725.367, 725.406, 725.407, 725.408, 725.409, 725.410, 725.411, 725.412, 725.414, 725.415, 725.416, 725.417, 725.418, 725.421(b), 725.423, 725.454, 725.456, 725.457, 725.458, 725.459, 725.465, 725.491, 725.492, 725.493, 725.494, 725.495, 725.547, 725.701(e). The version of those sections set forth in 20 CFR, parts 500 to end, edition revised as of April 1, 1999, apply to the adjudications of claims that were pending on January 19, 2001. For purposes of construing the provisions of this section, a claim shall be considered pending on January 19, 2001 if it was not finally denied more than one year prior to that date.

[65 FR 80054, Dec. 20, 2000, as amended at 68 FR 69935, Dec. 15, 2003]

§ 725.3 Contents of this part.

(a) This subpart describes the statutory provisions which relate to claims considered under this part, the purpose and scope of this part, definitions and usages of terms applicable to this part, and matters relating to the availability of information collected by the Department of Labor in connection with the processing of claims.

(b) Subpart B contains criteria for determining who may be found entitled to benefits under this part and other provisions relating to the conditions and duration of eligibility of a particular individual.

(c) Subpart C describes the procedures to be followed and action to be taken in connection with the filing of a claim under this part.

(d) Subpart D sets forth the duties and powers of the persons designated by the Secretary of Labor to adjudicate claims and provisions relating to the rights of parties and representatives of parties.

(e) Subpart E contains the procedures for developing evidence and adjudicating entitlement and liability issues by the district director.

(f) Subpart F describes the procedures to be followed if a hearing before the Office of Administrative Law Judges is required.

(g) Subpart G contains provisions governing the identification of a coal mine operator which may be liable for the payment of a claim.

(h) Subpart H contains provisions governing the payment of benefits with respect to an approved claim.

(i) Subpart I describes the statutory mechanisms provided for the enforcement of a coal mine operator's liability, sets forth the penalties which may be applied in the case of a defaulting coal mine operator, and describes the obligation of coal operators and their insurance carriers to file certain reports.

(j) Subpart J describes the right of certain beneficiaries to receive medical

treatment benefits and vocational rehabilitation under the Act.

§ 725.4 Applicability of other parts in this title.

(a) Part 718. Part 718 of this subchapter, which contains the criteria and standards to be applied in determining whether a miner is or was totally disabled due to pneumoconiosis, or whether a miner died due to pneumoconiosis, shall be applicable to the determination of claims under this part. Claims filed after March 31, 1980, are subject to part 718 as promulgated by the Secretary in accordance with section 402(f)(1) of the Act on February 29, 1980 (see § 725.2(c)). The criteria contained in subpart C of part 727 of this subchapter are applicable in determining claims filed prior to April 1, 1980, under this part, and such criteria shall be applicable at all times with respect to claims filed under this part and under section 11 of the Black Lung Benefits Reform Act of 1977.

(b) *Parts 715, 717, and 720.* Pertinent and significant provisions of Parts 715, 717, and 720 of this subchapter (formerly contained in 20 CFR, parts 500 to end, edition revised as of April 1, 1978), which established the procedures for the filing, processing, and payment of claims filed under section 415 of the Act, are included within this part as appropriate.

(c) *Part 726.* Part 726 of this subchapter, which sets forth the obligations imposed upon a coal operator to insure or self-insure its liability for the payment of benefits to certain eligible claimants, is applicable to this part as appropriate.

(d) *Part 727.* Part 727 of this subchapter, which governs the review, adjudication and payment of pending and denied claims under section 435 of the Act, is applicable with respect to such claims. The criteria contained in subpart C of part 727 for determining a claimant's eligibility for benefits are applicable under this part with respect to all claims filed before April 1, 1980, and to all claims filed under this part and under section 11 of the Black Lung Benefits Reform Act of 1977. Because the part 727 regulations affect an increasingly smaller number of claims, however, the Department has discontinued publication of the criteria in the Code of Federal Regulations. The part 727 criteria may be found at 43 FR 36818, Aug. 18, 1978 or 20 CFR, parts 500 to end, edition revised as of April 1, 1999.

(e) *Part 410.* Part 410 of this title, which sets forth provisions relating to a claim for black lung benefits under part B of title IV of the Act, is inapplicable to this part except as is provided in this part, or in part 718 of this subchapter.

§ 725.101 Definition and use of terms.

(a) *Definitions.* For purposes of this subchapter, except where the content clearly indicates otherwise, the following definitions apply:

(1) The *Act* means the Federal Coal Mine Health and Safety Act, Public Law 91–173, 83 Stat. 742, 30 U.S.C. 801–960, as amended by the Black Lung Benefits Act of 1972, the Mine Safety and Health Act of 1977, the Black Lung Benefits Reform Act of 1977, the Black Lung Benefits Revenue Act of 1977, the Black Lung Benefits Revenue Act of 1981, and the Black Lung Benefits Amendments of 1981.

(2) The *Longshoremen's Act* or LHWCA means the Longshoremen's and Harbor Workers' Compensation Act of March 4, 1927, c. 509, 44 Stat. 1424, 33 U.S.C. 901–950, as amended from time to time.

(3) The *Social Security Act* means the Social Security Act, Act of August 14, 1935, c. 531, 49 Stat. 620, 42 U.S.C. 301–431, as amended from time to time.

(4) *Administrative law judge* means a person qualified under 5 U.S.C. 3105 to conduct hearings and adjudicate claims for benefits filed pursuant to section 415 and part C of the Act. Until March 1, 1979, it shall also mean an individual appointed to conduct such hearings and adjudicate such claims under Public Law 94–504.

(5) *Beneficiary* means a miner or any surviving spouse, divorced spouse, child, parent, brother or sister, who is entitled to benefits under either section 415 or part C of title IV of the Act.

(6) *Benefits* means all money or other benefits paid or payable under section 415 or part C of title IV of the Act on account of disability or death due to pneumoconiosis, including augmented benefits (see § 725.520(c)). The term also

includes any expenses related to the medical examination and testing authorized by the district director pursuant to § 725.406.

(7) *Benefits Review Board* or *Board* means the Benefits Review Board, U.S. Department of Labor, an appellate tribunal appointed by the Secretary of Labor pursuant to the provisions of section 21(b)(1) of the LHWCA. See parts 801 and 802 of this title.

(8) *Black Lung Disability Trust Fund* or the *fund* means the Black Lung Disability Trust Fund established by the Black Lung Benefits Revenue Act of 1977, as amended by the Black Lung Benefits Revenue Act of 1981, for the payment of certain claims adjudicated under this part (see subpart G of this part).

(9) *Chief Administrative Law Judge* means the Chief Administrative Law Judge of the Office of Administrative Law Judges, U.S. Department of Labor, 800 K Street, NW., suite 400, Washington, DC 20001–8002.

(10) *Claim* means a written assertion of entitlement to benefits under section 415 or part C of title IV of the Act, submitted in a form and manner authorized by the provisions of this subchapter.

(11) *Claimant* means an individual who files a claim for benefits under this part.

(12) *Coal mine* means an area of land and all structures, facilities, machinery, tools, equipment, shafts, slopes, tunnels, excavations and other property, real or personal, placed upon, under or above the surface of such land by any person, used in, or to be used in, or resulting from, the work of extracting in such area bituminous coal, lignite or anthracite from its natural deposits in the earth by any means or method, and in the work of preparing the coal so extracted, and includes custom coal preparation facilities.

(13) *Coal preparation* means the breaking, crushing, sizing, cleaning, washing, drying, mixing, storing and loading of bituminous coal, lignite or anthracite, and such other work of preparing coal as is usually done by the operator of a coal mine.

(14) *Department* means the United States Department of Labor.

(15) *Director* means the Director, OWCP, or his or her designee.

(16) *District Director* means a person appointed as provided in sections 39 and 40 of the LHWCA, or his or her designee, who is authorized to develop and adjudicate claims as provided in this subchapter (see § 725.350). The term District Director is substituted for the term Deputy Commissioner wherever that term appears in the regulations. This substitution is for administrative purposes only and in no way affects the power or authority of the position as established in the statute. Any action taken by a person under the authority of a district director will be considered the action of a deputy commissioner.

(17) *Division* or *DCMWC* means the Division of Coal Mine Workers' Compensation in the OWCP, Employment Standards Administration, United States Department of Labor.

(18) *Insurer* or *carrier* means any private company, corporation, mutual association, reciprocal or interinsurance exchange, or any other person or fund, including any State fund, authorized under the laws of a State to insure employers' liability under workers' compensation laws. The term also includes the Secretary of Labor in the exercise of his or her authority under section 433 of the Act.

(19) *Miner* or *coal miner* means any individual who works or has worked in or around a coal mine or coal preparation facility in the extraction or preparation of coal. The term also includes an individual who works or has worked in coal mine construction or transportation in or around a coal mine, to the extent such individual was exposed to coal mine dust as a result of such employment (see § 725.202). For purposes of this definition, the term does not include coke oven workers.

(20) *The Nation's coal mines* means all coal mines located in any State.

(21) *Office* or *OWCP* means the Office of Workers' Compensation Programs, United States Department of Labor.

(22) *Office of Administrative Law Judges* means the Office of Administrative Law Judges, U.S. Department of Labor.

(23) *Operator* means any owner, lessee, or other person who operates, controls or supervises a coal mine, including a prior or successor operator as defined in section 422 of the Act and certain transportation and construction employers (see subpart G of this part).

(24) *Person* means an individual, partnership, association, corporation, firm, subsidiary or parent of a corporation, or other organization or business entity.

(25) *Pneumoconiosis* means a chronic dust disease of the lung and its sequelae, including respiratory and pulmonary impairments, arising out of coal mine employment (see part 718 of this subchapter).

(26) *Responsible operator* means an operator which has been determined to be liable for the payment of benefits to a claimant for periods of eligibility after December 31, 1973, with respect to a claim filed under section 415 or part C of title IV of the Act or reviewed under section 435 of the Act.

(27) *Secretary* means the Secretary of Labor, United States Department of Labor, or a person, authorized by him or her to perform his or her functions under title IV of the Act.

(28) *State* includes any state of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, Guam, the Trust Territory of the Pacific Islands, and prior to January 3, 1959, and August 21, 1959, respectively, the territories of Alaska and Hawaii.

(29) *Total disability* and *partial disability*, for purposes of this part, have the meaning given them as provided in part 718 of this subchapter.

(30) *Underground coal mine* means a coal mine in which the earth and other materials which lie above and around the natural deposit of coal (*i.e.*, overburden) are not removed in mining; including all land, structures, facilities, machinery, tools, equipment, shafts, slopes, tunnels, excavations and other property, real or personal, appurtenant thereto.

(31) A *workers' compensation law* means a law providing for payment of benefits to employees, and their dependents and survivors, for disability on account of injury, including occupational disease, or death, suffered in connection with their employment. A payment funded wholly out of general revenues shall not be considered a payment under a workers' compensation law.

(32) *Year* means a period of one calendar year (365 days, or 366 days if one of the days is February 29), or partial periods totaling one year, during which the miner worked in or around a coal mine or mines for at least 125 ''working days.'' A ''working day'' means any day or part of a day for which a miner received pay for work as a miner, but shall not include any day for which the miner received pay while on an approved absence, such as vacation or sick leave. In determining whether a miner worked for one year, any day for which the miner received pay while on an approved absence, such as vacation or sick leave, may be counted as part of the calendar year and as partial periods totaling one year.

(i) If the evidence establishes that the miner worked in or around coal mines at least 125 working days during a calendar year or partial periods totaling one year, then the miner has worked one year in coal mine employment for all purposes under the Act. If a miner worked fewer than 125 working days in a year, he or she has worked a fractional year based on the ratio of the actual number of days worked to 125. Proof that the miner worked more than 125 working days in a calendar year or partial periods totaling a year, shall not establish more than one year.

(ii) To the extent the evidence permits, the beginning and ending dates of all periods of coal mine employment shall be ascertained. The dates and length of employment may be established by any credible evidence including (but not limited to) company records, pension records, earnings statements, coworker affidavits, and sworn testimony. If the evidence establishes that the miner's employment lasted for a calendar year or partial periods totaling a 365-day period amounting to one year, it shall be presumed, in the absence of evidence to the contrary, that the miner spent at least 125 working days in such employment.

(iii) If the evidence is insufficient to establish the beginning and ending

dates of the miner's coal mine employment, or the miner's employment lasted less than a calendar year, then the adjudication officer may use the following formula: divide the miner's yearly income from work as a miner by the coal mine industry's average daily earnings for that year, as reported by the Bureau of Labor Statistics (BLS). A copy of the BLS table shall be made a part of the record if the adjudication officer uses this method to establish the length of the miner's work history.

(iv) No periods of coal mine employment occurring outside the United States shall be considered in computing the miner's work history.

(b) *Statutory terms.* The definitions contained in this section shall not be construed in derogation of terms of the Act.

(c) *Dependents and survivors.* Dependents and survivors are those persons described in subpart B of this part.

§ 725.102 Disclosure of program information.

(a) All reports, records, or other documents filed with the OWCP with respect to claims are the records of the OWCP. The Director or his or her designee shall be the official custodian of those records maintained by the OWCP at its national office. The District Director shall be the official custodian of those records maintained at a district office.

(b) The official custodian of any record sought to be inspected shall permit or deny inspection in accordance with the Department of Labor's regulations pertaining thereto (see 29 CFR Part 70). The original record in any such case shall not be removed from the Office of the custodian for such inspection. The custodian may, in his or her discretion, deny inspection of any record or part thereof which is of a character specified in 5 U.S.C. 552(b) if in his or her opinion such inspection may result in damage, harm, or harassment to the beneficiary or to any other person. For special provisions concerning release of information regarding injured employees undergoing vocational rehabilitation, see § 702.508 of this chapter.

(c) Any person may request copies of records he or she has been permitted to inspect. Such requests shall be addressed to the official custodian of the records sought to be copied. The official custodian shall provide the requested copies under the terms and conditions specified in the Department of Labor's regulations relating thereto (see 29 CFR Part 70).

(d) Any party to a claim (§ 725.360) or his or her duly authorized representative shall be permitted upon request to inspect the file which has been compiled in connection with such claim. Any party to a claim or representative of such party shall upon request be provided with a copy of any or all material contained in such claim file. A request for information by a party or representative made under this paragraph shall be answered within a reasonable time after receipt by the Office. Internal documents prepared by the district director which do not constitute evidence of a fact which must be established in connection with a claim shall not be routinely provided or presented for inspection in accordance with a request made under this paragraph.

§ 725.103 Burden of proof.

Except as otherwise provided in this part and part 718, the burden of proving a fact alleged in connection with any provision shall rest with the party making such allegation.

Subpart B—Persons Entitled to Benefits, Conditions, and Duration of Entitlement

§ 725.201 Who is entitled to benefits; contents of this subpart.

(a) Section 415 and part C of the Act provide for the payment of periodic benefits in accordance with this part to:

(1) A miner (see § 725.202) who is determined to be totally disabled due to pneumoconiosis; or

(2) The surviving spouse or surviving divorced spouse or, where neither exists, the child of a deceased miner, where the deceased miner:

(i) Was receiving benefits under section 415 or part C of title IV of the Act as a result of a claim filed prior to January 1, 1982; or

(ii) Is determined as a result of a claim filed prior to January 1, 1982, to

have been totally disabled due to pneumoconiosis at the time of death, or to have died due to pneumoconiosis. Survivors of miners whose claims are filed on or after January 1, 1982, must establish that the deceased miner's death was due to pneumoconiosis in order to establish their entitlement to benefits, except where entitlement is established under § 718.306 of this subchapter on a survivor's claim filed prior to June 30, 1982, or;

(3) The child of a miner's surviving spouse who was receiving benefits under section 415 or part C of title IV of the Act at the time of such spouse's death; or

(4) The surviving dependent parents, where there is no surviving spouse or child, or the surviving dependent brothers or sisters, where there is no surviving spouse, child, or parent, of a miner, where the deceased miner;

(i) Was receiving benefits under section 415 or part C of title IV of the Act as a result of a claim filed prior to January 1, 1982; or

(ii) Is determined as a result of a claim filed prior to January 1, 1982, to have been totally disabled due to pneumoconiosis at the time of death, or to have died due to pneumoconiosis. Survivors of miners whose claims are filed on or after January 1, 1982, must establish that the deceased miner's death was due to pneumoconiosis in order to establish their entitlement to benefits, except where entitlement is established under § 718.306 of this subchapter on a survivor's claim filed prior to June 30, 1982.

(b) Section 411(c)(5) of the Act provides for the payment of benefits to the eligible survivors of a miner employed for 25 or more years in the mines prior to June 30, 1971, if the miner's death occurred on or before March 1, 1978, and if the claim was filed prior to June 30, 1982, unless it is established that at the time of death, the miner was not totally or partially disabled due to pneumoconiosis. For the purposes of this part the term ''total disability'' shall mean partial disability with respect to a claim for which eligibility is established under section 411(c)(5) of the Act. See § 718.306 of this subchapter which implements this provision of the Act.

(c) The provisions contained in this subpart describe the conditions of entitlement to benefits applicable to a miner, or a surviving spouse, child, parent, brother, or sister, and the events which establish or terminate entitlement to benefits.

(d) In order for an entitled miner or surviving spouse to qualify for augmented benefits because of one or more dependents, such dependents must meet relationship and dependency requirements with respect to such beneficiary prescribed by or pursuant to the Act. Such requirements are also set forth in this subpart.

CONDITIONS AND DURATION OF ENTITLEMENT: MINER

§ 725.202 Miner defined; condition of entitlement, miner.

(a) *Miner defined.* A ''miner'' for the purposes of this part is any person who works or has worked in or around a coal mine or coal preparation facility in the extraction, preparation, or transportation of coal, and any person who works or has worked in coal mine construction or maintenance in or around a coal mine or coal preparation facility. There shall be a rebuttable presumption that any person working in or around a coal mine or coal preparation facility is a miner. This presumption may be rebutted by proof that:

(1) The person was not engaged in the extraction, preparation or transportation of coal while working at the mine site, or in maintenance or construction of the mine site; or

(2) The individual was not regularly employed in or around a coal mine or coal preparation facility.

(b) *Coal mine construction and transportation workers; special provisions.* A coal mine construction or transportation worker shall be considered a miner to the extent such individual is or was exposed to coal mine dust as a result of employment in or around a coal mine or coal preparation facility. A transportation worker shall be considered a miner to the extent that his or her work is integral to the extraction or preparation of coal. A construction worker shall be considered a miner

to the extent that his or her work is integral to the building of a coal or underground mine (see § 725.101(a)(12), (30)).

(1) There shall be a rebuttable presumption that such individual was exposed to coal mine dust during all periods of such employment occurring in or around a coal mine or coal preparation facility for purposes of:

(i) Determining whether such individual is or was a miner;

(ii) Establishing the applicability of any of the presumptions described in section 411(c) of the Act and part 718 of this subchapter; and

(iii) Determining the identity of a coal mine operator liable for the payment of benefits in accordance with § 725.495.

(2) The presumption may be rebutted by evidence which demonstrates that:

(i) The individual was not regularly exposed to coal mine dust during his or her work in or around a coal mine or coal preparation facility; or

(ii) The individual did not work regularly in or around a coal mine or coal preparation facility.

(c) A person who is or was a self-employed miner or independent contractor, and who otherwise meets the requirements of this paragraph, shall be considered a miner for the purposes of this part.

(d) *Conditions of entitlement; miner.* An individual is eligible for benefits under this subchapter if the individual:

(1) Is a miner as defined in this section; and

(2) Has met the requirements for entitlement to benefits by establishing that he or she:

(i) Has pneumoconiosis (see § 718.202), and

(ii) The pneumoconiosis arose out of coal mine employment (see § 718.203), and

(iii) Is totally disabled (see § 718.204(c)), and

(iv) The pneumoconiosis contributes to the total disability (see § 718.204(c)); and

(3) Has filed a claim for benefits in accordance with the provisions of this part.

§ 725.203 Duration and cessation of entitlement; miner.

(a) An individual is entitled to benefits as a miner for each month beginning with the first month on or after January 1, 1974, in which the miner is totally disabled due to pneumoconiosis arising out of coal mine employment.

(b) The last month for which such individual is entitled to benefits is the month before the month during which either of the following events first occurs:

(1) The miner dies; or

(2) The miner's total disability ceases (see § 725.504).

(c) An individual who has been finally adjudged to be totally disabled due to pneumoconiosis and is receiving benefits under the Act shall promptly notify the Office and the responsible coal mine operator, if any, if he or she engages in his or her usual coal mine work or comparable and gainful work.

(d) Upon reasonable notice, an individual who has been finally adjudged entitled to benefits shall submit to any additional tests or examinations the Office deems appropriate, and shall submit medical reports and other relevant evidence the Office deems necessary, if an issue arises pertaining to the validity of the original award.

CONDITIONS AND DURATION OF ENTITLEMENT: MINER'S DEPENDENTS (AUGMENTED BENEFITS)

§ 725.204 Determination of relationship; spouse.

(a) For the purpose of augmenting benefits, an individual will be considered to be the spouse of a miner if:

(1) The courts of the State in which the miner is domiciled would find that such individual and the miner validly married; or

(2) The courts of the State in which the miner is domiciled would find, under the law they would apply in determining the devolution of the miner's intestate personal property, that the individual is the miner's spouse; or

(3) Under State law, such individual would have the right of a spouse to share in the miner's intestate personal property; or

(4) Such individual went through a marriage ceremony with the miner resulting in a purported marriage between them and which, but for a legal impediment, would have been a valid marriage, unless the individual entered into the purported marriage with knowledge that it was not a valid marriage, or if such individual and the miner were not living in the same household in the month in which a request is filed that the miner's benefits be augmented because such individual qualifies as the miner's spouse.

(b) The qualification of an individual for augmentation purposes under this section shall end with the month before the month in which:

(1) The individual dies, or

(2) The individual who previously qualified as a spouse for purposes of § 725.520(c), entered into a valid marriage without regard to this section, with a person other than the miner.

§ 725.205 Determination of dependency; spouse.

For the purposes of augmenting benefits, an individual who is the miner's spouse (see § 725.204) will be determined to be dependent upon the miner if:

(a) The individual is a member of the same household as the miner (see § 725.232); or

(b) The individual is receiving regular contributions from the miner for support (see § 725.233(c)); or

(c) The miner has been ordered by a court to contribute to such individual's support (see § 725.233(e)); or

(d) The individual is the natural parent of the son or daughter of the miner; or

(e) The individual was married to the miner (see § 725.204) for a period of not less than 1 year.

§ 725.206 Determination of relationship; divorced spouse.

For the purposes of augmenting benefits with respect to any claim considered or reviewed under this part or part 727 of this subchapter (see § 725.4(d)), an individual will be considered to be the divorced spouse of a miner if the individual's marriage to the miner has been terminated by a final divorce on or after the 10th anniversary of the marriage unless, if such individual was married to and divorced from the miner more than once, such individual was married to the miner in each calendar year of the period beginning 10 years immediately before the date on which any divorce became final.

§ 725.207 Determination of dependency; divorced spouse.

For the purpose of augmenting benefits, an individual who is the miner's divorced spouse (§ 725.206) will be determined to be dependent upon the miner if:

(a) The individual is receiving at least one-half of his or her support from the miner (see § 725.233(g)); or

(b) The individual is receiving substantial contributions from the miner pursuant to a written agreement (see § 725.233(c) and (f)); or

(c) A court order requires the miner to furnish substantial contributions to the individual's support (see § 725.233(c) and (e)).

§ 725.208 Determination of relationship; child.

As used in this section, the term ''beneficiary'' means only a surviving spouse entitled to benefits at the time of death (see § 725.212), or a miner. An individual will be considered to be the child of a beneficiary if:

(a) The courts of the State in which the beneficiary is domiciled (see § 725.231) would find, under the law they would apply, that the individual is the beneficiary's child; or

(b) The individual is the legally adopted child of such beneficiary; or

(c) The individual is the stepchild of such beneficiary by reason of a valid marriage of the individual's parent or adopting parent to such beneficiary; or

(d) The individual does not bear the relationship of child to such beneficiary under paragraph (a), (b), or (c) of this section, but would, under State law, have the same right as a child to share in the beneficiary's intestate personal property; or

(e) The individual is the natural son or daughter of a beneficiary but is not a child under paragraph (a), (b), or (c) of this section, and is not considered to be the child of the beneficiary under paragraph (d) of this section if the beneficiary and the mother or the father,

as the case may be, of the individual went through a marriage ceremony resulting in a purported marriage between them which but for a legal impediment (see § 725.230) would have been a valid marriage; or

(f) The individual is the natural son or daughter of a beneficiary but is not a child under paragraph (a), (b), or (c) of this section, and is not considered to be the child of the beneficiary under paragraph (d) or (e) of this section, such individual shall nevertheless be considered to be the child of the beneficiary if:

(1) The beneficiary, prior to his or her entitlement to benefits, has acknowledged in writing that the individual is his or her son or daughter, or has been decreed by a court to be the parent of the individual, or has been ordered by a court to contribute to the support of the individual (see § 725.233(e)) because the individual is his or her son or daughter; or

(2) Such beneficiary is shown by satisfactory evidence to be the father or mother of the individual and was living with or contributing to the support of the individual at the time the beneficiary became entitled to benefits.

§ 725.209 Determination of dependency; child.

(a) For purposes of augmenting the benefits of a miner or surviving spouse, the term ''beneficiary'' as used in this section means only a miner or surviving spouse entitled to benefits (see § 725.202 and § 725.212). An individual who is the beneficiary's child (§ 725.208) will be determined to be, or to have been, dependent on the beneficiary, if the child:

(1) Is unmarried; and

(2)(i) Is under 18 years of age; or

(ii) Is under a disability as defined in section 223(d) of the Social Security Act, 42 U.S.C. 423(d); or

(iii) Is 18 years of age or older and is a student.

(b)(1) The term ''student'' means a ''full-time student'' as defined in section 202(d)(7) of the Social Security Act, 42 U.S.C. 402(d)(7) (see §§ 404.367–404.369 of this title), or an individual under 23 years of age who has not completed 4 years of education beyond the high school level and who is regularly pursuing a full-time course of study or training at an institution which is:

(i) A school, college, or university operated or directly supported by the United States, or by a State or local government or political subdivision thereof; or

(ii) A school, college, or university which has been accredited by a State or by a State-recognized or nationally-recognized accrediting agency or body; or

(iii) A school, college, or university not so accredited but whose credits are accepted, on transfer, by at least three institutions which are so accredited; or

(iv) A technical, trade, vocational, business, or professional school accredited or licensed by the Federal or a State government or any political subdivision thereof, providing courses of not less than 3 months' duration that prepare the student for a livelihood in a trade, industry, vocation, or profession.

(2) A student will be considered to be ''pursuing a full-time course of study or training at an institution'' if the student is enrolled in a noncorrespondence course of at least 13 weeks duration and is carrying a subject load which is considered full-time for day students under the institution's standards and practices. A student beginning or ending a full-time course of study or training in part of any month will be considered to be pursuing such course for the entire month.

(3) A child is considered not to have ceased to be a student:

(i) During any interim between school years, if the interim does not exceed 4 months and the child shows to the satisfaction of the Office that he or she has a bona fide intention of continuing to pursue a full-time course of study or training; or

(ii) During periods of reasonable duration in which, in the judgment of the Office, the child is prevented by factors beyond the child's control from pursuing his or her education.

(4) A student whose 23rd birthday occurs during a semester or the enrollment period in which such student is pursuing a full-time course of study or

training shall continue to be considered a student until the end of such period, unless eligibility is otherwise terminated.

§ 725.210 Duration of augmented benefits.

Augmented benefits payable on behalf of a spouse or divorced spouse, or a child, shall begin with the first month in which the dependent satisfies the conditions of relationship and dependency set forth in this subpart. Augmentation of benefits on account of a dependent continues through the month before the month in which the dependent ceases to satisfy these conditions, except in the case of a child who qualifies as a dependent because such child is a student. In the latter case, benefits continue to be augmented through the month before the first month during no part of which such child qualifies as a student.

§ 725.211 Time of determination of relationship and dependency of spouse or child for purposes of augmentation of benefits.

With respect to the spouse or child of a miner entitled to benefits, and with respect to the child of a surviving spouse entitled to benefits, the determination as to whether an individual purporting to be a spouse or child is related to or dependent upon such miner or surviving spouse shall be based on the facts and circumstances present in each case, at the appropriate time.

CONDITIONS AND DURATION OF ENTITLEMENT: MINER'S SURVIVORS

§ 725.212 Conditions of entitlement; surviving spouse or surviving divorced spouse.

(a) An individual who is the surviving spouse or surviving divorced spouse of a miner is eligible for benefits if such individual:

(1) Is not married;

(2) Was dependent on the miner at the pertinent time; and

(3) The deceased miner either:

(i) Was receiving benefits under section 415 or part C of title IV of the Act at the time of death as a result of a claim filed prior to January 1, 1982; or

(ii) Is determined as a result of a claim filed prior to January 1, 1982, to have been totally disabled due to pneumoconiosis at the time of death or to have died due to pneumoconiosis. A surviving spouse or surviving divorced spouse of a miner whose claim is filed on or after January 1, 1982, must establish that the deceased miner's death was due to pneumoconiosis in order to establish entitlement to benefits, except where entitlement is established under § 718.306 of part 718 on a claim filed prior to June 30, 1982.

(b) If more than one spouse meets the conditions of entitlement prescribed in paragraph (a), then each spouse will be considered a beneficiary for purposes of section 412(a)(2) of the Act without regard to the existence of any other entitled spouse or spouses.

§ 725.213 Duration of entitlement; surviving spouse or surviving divorced spouse.

(a) An individual is entitled to benefits as a surviving spouse, or as a surviving divorced spouse, for each month beginning with the first month in which all of the conditions of entitlement prescribed in § 725.212 are satisfied.

(b) The last month for which such individual is entitled to such benefits is the month before the month in which either of the following events first occurs:

(1) The surviving spouse or surviving divorced spouse marries; or

(2) The surviving spouse or surviving divorced spouse dies.

(c) A surviving spouse or surviving divorced spouse whose entitlement to benefits has been terminated pursuant to § 725.213(b)(1) may thereafter again become entitled to such benefits upon filing application for such reentitlement, beginning with the first month after the marriage ends and such individual meets the requirements of § 725.212. The individual shall not be required to reestablish the miner's entitlement to benefits (§ 725.212(a)(3)(i)) or the miner's death due to pneumoconiosis (§ 725.212(a)(3)(ii)).

§ 725.214 Determination of relationship; surviving spouse.

An individual shall be considered to be the surviving spouse of a miner if:

(a) The courts of the State in which the miner was domiciled (see § 725.231) at the time of his or her death would find that the individual and the miner were validly married; or

(b) The courts of the State in which the miner was domiciled (see § 725.231) at the time of the miner's death would find that the individual was the miner's surviving spouse; or

(c) Under State law, such individual would have the right of the spouse to share in the miner's intestate personal property; or

(d) Such individual went through a marriage ceremony with the miner, resulting in a purported marriage between them which, but for a legal impediment (see § 725.230), would have been a valid marriage, unless such individual entered into the purported marriage with knowledge that it was not a valid marriage, or if such individual and the miner were not living in the same household at the time of the miner's death.

§ 725.215 Determination of dependency; surviving spouse.

An individual who is the miner's surviving spouse (see § 725.214) shall be determined to have been dependent on the miner if, at the time of the miner's death:

(a) The individual was living with the miner (see § 725.232); or

(b) The individual was dependent upon the miner for support or the miner has been ordered by a court to contribute to such individual's support (see § 725.233); or

(c) The individual was living apart from the miner because of the miner's desertion or other reasonable cause; or

(d) The individual is the natural parent of the miner's son or daughter; or

(e) The individual had legally adopted the miner's son or daughter while the individual was married to the miner and while such son or daughter was under the age of 18; or

(f) The individual was married to the miner at the time both of them legally adopted a child under the age of 18; or

(g)(1) The individual was married to the miner for a period of not less than 9 months immediately before the day on which the miner died, unless the miner's death:

(i) Is accidental (as defined in paragraph (g)(2) of this section), or

(ii) Occurs in line of duty while the miner is a member of a uniformed service serving on active duty (as defined in § 404.1019 of this title), and the surviving spouse was married to the miner for a period of not less than 3 months immediately prior to the day on which such miner died.

(2) For purposes of paragraph (g)(1)(i) of this section, the death of a miner is accidental if such individual received bodily injuries solely through violent, external, and accidental means, and as a direct result of the bodily injuries and independently of all other causes, dies not later than 3 months after the day on which such miner receives such bodily injuries. The term ''accident'' means an event that was unpremeditated and unforeseen from the standpoint of the deceased individual. To determine whether the death of an individual did, in fact, result from an accident the adjudication officer will consider all the circumstances surrounding the casualty. An intentional and voluntary suicide will not be considered to be death by accident; however, suicide by an individual who is so incompetent as to be incapable of acting intentionally and voluntarily will be considered to be a death by accident. In no event will the death of an individual resulting from violent and external causes be considered a suicide unless there is direct proof that the fatal injury was self-inflicted.

(3) The provisions of paragraph (g) shall not apply if the adjudication officer determines that at the time of the marriage involved, the miner would not reasonably have been expected to live for 9 months.

§ 725.216 Determination of relationship; surviving divorced spouse.

An individual will be considered to be the surviving divorced spouse of a deceased miner in a claim considered under this part or reviewed under part 727 of this subchapter (see § 725.4(d)), if such individual's marriage to the miner had been terminated by a final divorce on or after the 10th anniversary of the marriage unless, if such individual was married to and divorced

from the miner more than once, such individual was married to such miner in each calendar year of the period beginning 10 years immediately before the date on which any divorce became final and ending with the year in which the divorce became final.

§ 725.217 Determination of dependency; surviving divorced spouse.

An individual who is the miner's surviving divorced spouse (see § 725.216) shall be determined to have been dependent on the miner if, for the month before the month in which the miner died:

(a) The individual was receiving at least one-half of his or her support from the miner (see § 725.233(g)); or

(b) The individual was receiving substantial contributions from the miner pursuant to a written agreement (see § 725.233(c) and (f)); or

(c) A court order required the miner to furnish substantial contributions to the individual's support (see § 725.233(c) and (e)).

§ 725.218 Conditions of entitlement; child.

(a) An individual is entitled to benefits where he or she meets the required standards of relationship and dependency under this subpart (see § 725.220 and § 725.221) and is the child of a deceased miner who:

(1) Was receiving benefits under section 415 or part C of title IV of the Act as a result of a claim filed prior to January 1, 1982, or

(2) Is determined as a result of a claim filed prior to January 1, 1982, to have been totally disabled due to pneumoconiosis at the time of death, or to have died due to pneumoconiosis. A surviving dependent child of a miner whose claim is filed on or after January 1, 1982, must establish that the miner's death was due to pneumoconiosis in order to establish entitlement to benefits, except where entitlement is established under § 718.306 of this subchapter on a claim filed prior to June 30, 1982.

(b) A child is not entitled to benefits for any month for which a miner, or the surviving spouse or surviving divorced spouse of a miner, establishes entitlement to benefits.

§ 725.219 Duration of entitlement; child.

(a) An individual is entitled to benefits as a child for each month beginning with the first month in which all of the conditions of entitlement prescribed in § 725.218 are satisfied.

(b) The last month for which such individual is entitled to such benefits is the month before the month in which any one of the following events first occurs:

(1) The child dies;

(2) The child marries;

(3) The child attains age 18; and

(i) Is not a student (as defined in § 725.209(b)) during any part of the month in which the child attains age 18; and

(ii) Is not under a disability (as defined in § 725.209(a)(2)(ii)) at that time;

(4) If the child's entitlement beyond age 18 is based on his or her status as a student, the earlier of:

(i) The first month during no part of which the child is a student; or

(ii) The month in which the child attains age 23 and is not under a disability (as defined in § 725.209(a)(2)(ii)) at that time;

(5) If the child's entitlement beyond age 18 is based on disability, the first month in no part of which such individual is under a disability.

(c) A child whose entitlement to benefits terminated with the month before the month in which the child attained age 18, or later, may thereafter (provided such individual is not married) again become entitled to such benefits upon filing application for such reentitlement, beginning with the first month after termination of benefits in which such individual is a student and has not attained the age of 23.

(d) A child whose entitlement to benefits has been terminated pursuant to § 725.219(b)(2) may thereafter again become entitled to such benefits upon filing application for such reentitlement, beginning with the first month after the marriage ends and such individual meets the requirements of § 725.218. The individual shall not be required to reestablish the miner's entitlement to benefits (§ 725.218(a)(1)) or the miner's death due to pneumoconiosis (§ 725.212(a)(2)).

§ 725.220 Determination of relationship; child.

For purposes of determining whether an individual may qualify for benefits as the child of a deceased miner, the provisions of § 725.208 shall be applicable. As used in this section, the term ''beneficiary'' means only a surviving spouse entitled to benefits at the time of such surviving spouse's death (see § 725.212), or a miner. For purposes of a survivor's claim, an individual will be considered to be a child of a beneficiary if:

(a) The courts of the State in which such beneficiary is domiciled (see § 725.231) would find, under the law they would apply in determining the devolution of the beneficiary's intestate personal property, that the individual is the beneficiary's child; or

(b) Such individual is the legally adopted child of such beneficiary; or

(c) Such individual is the stepchild of such beneficiary by reason of a valid marriage of such individual's parent or adopting parent to such beneficiary; or

(d) Such individual does not bear the relationship of child to such beneficiary under paragraph (a), (b), or (c) of this section, but would, under State law, have the same right as a child to share in the beneficiary's intestate personal property; or

(e) Such individual is the natural son or daughter of a beneficiary but does not bear the relationship of child to such beneficiary under paragraph (a), (b), or (c) of this section, and is not considered to be the child of the beneficiary under paragraph (d) of this section, such individual shall nevertheless be considered to be the child of such beneficiary if the beneficiary and the mother or father, as the case may be, of such individual went through a marriage ceremony resulting in a purported marriage between them which but for a legal impediment (see § 725.230) would have been a valid marriage; or

(f) Such individual is the natural son or daughter of a beneficiary but does not have the relationship of child to such beneficiary under paragraph (a), (b), or (c) of this section, and is not considered to be the child of the beneficiary under paragraph (d) or (e) of this section, such individual shall nevertheless be considered to be the child of such beneficiary if:

(1) Such beneficiary, prior to his or her entitlement to benefits, has acknowledged in writing that the individual is his or her son or daughter, or has been decreed by a court to be the father or mother of the individual, or has been ordered by a court to contribute to the support of the individual (see § 725.233(a)) because the individual is a son or daughter; or

(2) Such beneficiary is shown by satisfactory evidence to be the father or mother of the individual and was living with or contributing to the support of the individual at the time such beneficiary became entitled to benefits.

§ 725.221 Determination of dependency; child.

For the purposes of determining whether a child was dependent upon a deceased miner, the provisions of § 725.209 shall be applicable, except that for purposes of determining the eligibility of a child who is under a disability as defined in section 223(d) of the Social Security Act, such disability must have begun before the child attained age 22, or in the case of a student, before the child ceased to be a student.

§ 725.222 Conditions of entitlement; parent, brother, or sister.

(a) An individual is eligible for benefits as a surviving parent, brother or sister if all of the following requirements are met:

(1) The individual is the parent, brother, or sister of a deceased miner;

(2) The individual was dependent on the miner at the pertinent time;

(3) Proof of support is filed within 2 years after the miner's death, unless the time is extended for good cause (§ 725.226);

(4) In the case of a brother or sister, such individual also:

(i) Is under 18 years of age; or

(ii) Is under a disability as defined in section 223(d) of the Social Security Act, 42 U.S.C. 423(d), which began before such individual attained age 22, or in the case of a student, before the student ceased to be a student; or

(iii) Is a student (see § 725.209(b)); or

(iv) Is under a disability as defined in section 223(d) of the Social Security Act, 42 U.S.C. 423(d), at the time of the miner's death;

(5) The deceased miner:

(i) Was entitled to benefits under section 415 or part C of title IV of the Act as a result of a claim filed prior to January 1, 1982; or

(ii) Is determined as a result of a claim filed prior to January 1, 1982, to have been totally disabled due to pneumoconiosis at the time of death or to have died due to pneumoconiosis. A surviving dependent parent, brother or sister of a miner whose claim is filed on or after January 1, 1982, must establish that the miner's death was due to pneumoconiosis in order to establish entitlement to benefits, except where entitlement is established under § 718.306 of part 718 on a claim filed prior to June 30, 1982.

(b)(1) A parent is not entitled to benefits if the deceased miner was survived by a spouse or child at the time of such miner's death.

(2) A brother or sister is not entitled to benefits if the deceased miner was survived by a spouse, child, or parent at the time of such miner's death.

§ 725.223 Duration of entitlement; parent, brother, or sister.

(a) A parent, sister, or brother is entitled to benefits beginning with the month all the conditions of entitlement described in § 725.222 are met.

(b) The last month for which such parent is entitled to benefits is the month in which the parent dies.

(c) The last month for which such brother or sister is entitled to benefits is the month before the month in which any of the following events first occurs:

(1) The individual dies;

(2)(i) The individual marries or remarries; or

(ii) If already married, the individual received support in any amount from his or her spouse;

(3) The individual attains age 18; and

(i) Is not a student (as defined in § 725.209(b)) during any part of the month in which the individual attains age 18; and

(ii) Is not under a disability (as defined in § 725.209(a)(2)(ii)) at that time;

(4) If the individual's entitlement beyond age 18 is based on his or her status as a student, the earlier of:

(i) The first month during no part of which the individual is a student; or

(ii) The month in which the individual attains age 23 and is not under a disability (as defined in § 725.209(a)(2)(ii)) at that time;

(5) If the individual's entitlement beyond age 18 is based on disability, the first month in no part of which such individual is under a disability.

§ 725.224 Determination of relationship; parent, brother, or sister.

(a) An individual will be considered to be the parent, brother, or sister of a miner if the courts of the State in which the miner was domiciled (see § 225.231) at the time of death would find, under the law they would apply, that the individual is the miner's parent, brother, or sister.

(b) Where, under State law, the individual is not the miner's parent, brother, or sister, but would, under State law, have the same status (*i.e.*, right to share in the miner's intestate personal property) as a parent, brother, or sister, the individual will be considered to be the parent, brother, or sister as appropriate.

§ 725.225 Determination of dependency; parent, brother, or sister.

An individual who is the miner's parent, brother, or sister will be determined to have been dependent on the miner if, during the 1–year period immediately prior to the miner's death:

(a) The individual and the miner were living in the same household (see § 725.232); and

(b) The individual was totally dependent on the miner for support (see § 725.233(h)).

§ 725.226 "Good cause" for delayed filing of proof of support.

(a) *What constitutes ''good cause.''* ''Good cause'' may be found for failure to file timely proof of support where the parent, brother, or sister establishes to the satisfaction of the Office that such failure to file was due to:

(1) Circumstances beyond the individual's control, such as extended illness,

mental, or physical incapacity, or communication difficulties; or

(2) Incorrect or incomplete information furnished the individual by the Office; or

(3) Efforts by the individual to secure supporting evidence without a realization that such evidence could be submitted after filing proof of support.

(b) *What does not constitute ''good cause.''* ''Good cause'' for failure to file timely proof of support (see § 725.222(a)(3)) does not exist when there is evidence of record in the Office that the individual was informed that he or she should file within the prescribed period and he or she failed to do so deliberately or through negligence.

§ 725.227 Time of determination of relationship and dependency of survivors.

The determination as to whether an individual purporting to be an entitled survivor of a miner or beneficiary was related to, or dependent upon, the miner is made after such individual files a claim for benefits as a survivor. Such determination is based on the facts and circumstances with respect to a reasonable period of time ending with the miner's death. A prior determination that such individual was, or was not, a dependent for the purposes of augmenting the miner's benefits for a certain period, is not determinative of the issue of whether the individual is a dependent survivor of such miner.

§ 725.228 Effect of conviction of felonious and intentional homicide on entitlement to benefits.

An individual who has been convicted of the felonious and intentional homicide of a miner or other beneficiary shall not be entitled to receive any benefits payable because of the death of such miner or other beneficiary, and such person shall be considered nonexistent in determining the entitlement to benefits of other individuals.

TERMS USED IN THIS SUBPART

§ 725.229 Intestate personal property.

References in this subpart to the ''same right to share in the intestate personal property'' of a deceased miner (or surviving spouse) refer to the right of an individual to share in such distribution in the individual's own right and not the right of representation.

§ 725.230 Legal impediment.

For purposes of this subpart, ''legal impediment'' means an impediment resulting from the lack of dissolution of a previous marriage or otherwise arising out of such previous marriage or its dissolution or resulting from a defect in the procedure followed in connection with the purported marriage ceremony—for example, the solemnization of a marriage only through a religious ceremony in a country which requires a civil ceremony for a valid marriage.

§ 725.231 Domicile.

(a) For purposes of this subpart, the term ''domicile'' means the place of an individual's true, fixed, and permanent home.

(b) The domicile of a deceased miner or surviving spouse is determined as of the time of death.

(c) If an individual was not domiciled in any State at the pertinent time, the law of the District of Columbia is applied.

§ 725.232 Member of the same household—"living with," "living in the same household," and "living in the miner's household," defined.

(a) *Defined.* (1) The term ''member of the same household'' as used in section 402(a)(2) of the Act (with respect to a spouse); the term ''living with'' as used in section 402(e) of the Act (with respect to a surviving spouse); and the term ''living in the same household'' as used in this subpart, means that a husband and wife were customarily living together as husband and wife in the same place.

(2) The term ''living in the miner's household'' as used in section 412(a)(5) of the Act (with respect to a parent, brother, or sister) means that the miner and such parent, brother, or sister were sharing the same residence.

(b) *Temporary absence.* The temporary absence from the same residence of either the miner, or the miner's spouse, parent, brother, or sister (as the case may be), does not preclude a finding that one was ''living with'' the other, or that they were ''members of the same household.'' The absence of one

such individual from the residence in which both had customarily lived shall, in the absence of evidence to the contrary, be considered temporary:

(1) If such absence was due to service in the Armed Forces of the United States; or

(2) If the period of absence from his or her residence did not exceed 6 months and the absence was due to business or employment reasons, or because of confinement in a penal institution or in a hospital, nursing home, or other curative institution; or

(3) In any other case, if the evidence establishes that despite such absence they nevertheless reasonably expected to resume physically living together.

(c) *Relevant period of time.* (1) The determination as to whether a surviving spouse had been ''living with'' the miner shall be based upon the facts and circumstances as of the time of the death of the miner.

(2) The determination as to whether a spouse is a ''member of the same household'' as the miner shall be based upon the facts and circumstances with respect to the period or periods of time as to which the issue of membership in the same household is material.

(3) The determination as to whether a parent, brother, or sister was ''living in the miner's household'' shall take account of the 1-year period immediately prior to the miner's death.

§ 725.233 Support and contributions.

(a) *Support* defined. The term ''support'' includes food, shelter, clothing, ordinary medical expenses, and other ordinary and customary items for the maintenance of the person supported.

(b) *Contributions* defined. The term ''contributions'' refers to contributions actually provided by the contributor from such individual's property, or the use thereof, or by the use of such individual's own credit.

(c) *Regular contributions* and *substantial contributions* defined. The terms ''regular contributions'' and ''substantial contributions'' mean contributions that are customary and sufficient to constitute a material factor in the cost of the individual's support.

(d) *Contributions and community property.* When a spouse receives and uses for his or her support income from services or property, and such income, under applicable State law, is the community property of the wife and her husband, no part of such income is a ''contribution'' by one spouse to the other's support regardless of the legal interest of the donor. However, when a spouse receives and uses for support, income from the services and the property of the other spouse and, under applicable State law, such income is community property, all of such income is considered to be a contribution by the donor to the spouse's support.

(e) *Court order for support* defined. References to a support order in this subpart means any court order, judgment, or decree of a court of competent jurisdiction which requires regular contributions that are a material factor in the cost of the individual's support and which is in effect at the applicable time. If such contributions are required by a court order, this condition is met whether or not the contributions were actually made.

(f) *Written agreement* defined. The term ''written agreement'' in the phrase ''substantial contributions pursuant to a written agreement'', as used in this subpart means an agreement signed by the miner providing for substantial contributions by the miner for the individual's support. It must be in effect at the applicable time but it need not be legally enforceable.

(g) *One-half support* defined. The term ''one-half support'' means that the miner made regular contributions, in cash or in kind, to the support of a divorced spouse at the specified time or for the specified period, and that the amount of such contributions equalled or exceeded one-half the total cost of such individual's support at such time or during such period.

(h) *Totally dependent for support* defined. The term ''totally dependent for support'' as used in § 725.225(b) means that the miner made regular contributions to the support of the miner's parents, brother, or sister, as the case may be, and that the amount of such contributions at least equalled the total cost of such individual's support.

Subpart C—Filing of Claims

§ 725.301 Who may file a claim.

(a) Any person who believes he or she may be entitled to benefits under the Act may file a claim in accordance with this subpart.

(b) A claimant who has attained the age of 18, is mentally competent and physically able, may file a claim on his or her own behalf.

(c) If a claimant is unable to file a claim on his or her behalf because of a legal or physical impairment, the following rules shall apply:

(1) A claimant between the ages of 16 and 18 years who is mentally competent and not under the legal custody or care of another person, or a committee or institution, may upon filing a statement to the effect, file a claim on his or her own behalf. In any other case where the claimant is under 18 years of age, only a person, or the manager or principal officer of an institution having legal custody or care of the claimant may file a claim on his or her behalf.

(2) If a claimant over 18 years of age has a legally appointed guardian or committee, only the guardian or committee may file a claim on his or her behalf.

(3) If a claimant over 18 years of age is mentally incompetent or physically unable to file a claim and is under the care of another person, or an institution, only the person, or the manager or principal officer of the institution responsible for the care of the claimant, may file a claim on his or her behalf.

(4) For good cause shown, the Office may accept a claim executed by a person other than one described in paragraphs (c)(2) or (3) of this section.

(d) Except as provided in § 725.305, in order for a claim to be considered, the claimant must be alive at the time the claim is filed.

§ 725.302 Evidence of authority to file a claim on behalf of another.

A person filing a claim on behalf of a claimant shall submit evidence of his or her authority to so act at the time of filing or at a reasonable time thereafter in accordance with the following:

(a) A legally appointed guardian or committee shall provide the Office with certification of appointment by a proper official of the court.

(b) Any other person shall provide a statement describing his or her relationship to the claimant, the extent to which he or she has care of the claimant, or his or her position as an officer of the institution of which the claimant is an inmate. The Office may, at any time, require additional evidence to establish the authority of any such person.

§ 725.303 Date and place of filing of claims.

(a)(1) Claims for benefits shall be delivered, mailed to, or presented at, any of the various district offices of the Social Security Administration, or any of the various offices of the Department of Labor authorized to accept claims, or, in the case of a claim filed by or on behalf of a claimant residing outside the United States, mailed or presented to any office maintained by the Foreign Service of the United States. A claim shall be considered filed on the day it is received by the office in which it is first filed.

(2) A claim submitted to a Foreign Service Office or any other agency or subdivision of the U.S. Government shall be forwarded to the Office and considered filed as of the date it was received at the Foreign Service Office or other governmental agency or unit.

(b) A claim submitted by mail shall be considered filed as of the date of delivery unless a loss or impairment of benefit rights would result, in which case a claim shall be considered filed as of the date of its postmark. In the absence of a legible postmark, other evidence may be used to establish the mailing date.

§ 725.304 Forms and initial processing.

(a) Claims shall be filed on forms prescribed and approved by the Office. The district office at which the claim is filed will assist claimants in completing their forms.

(b) If the place at which a claim is filed is an office of the Social Security Administration, such office shall forward the completed claim form to an

office of the DCMWC, which is authorized to process the claim.

§ 725.305 When a written statement is considered a claim.

(a) The filing of a statement signed by an individual indicating an intention to claim benefits shall be considered to be the filing of a claim for the purposes of this part under the following circumstances:

(1) The claimant or a proper person on his or her behalf (see § 725.301) executes and files a prescribed claim form with the Office during the claimant's lifetime within the period specified in paragraph (b) of this section.

(2) Where the claimant dies within the period specified in paragraph (b) of this section without filing a prescribed claim form, and a person acting on behalf of the deceased claimant's estate executes and files a prescribed claim form within the period specified in paragraph (c) of this section.

(b) Upon receipt of a written statement indicating an intention to claim benefits, the Office shall notify the signer in writing that to be considered the claim must be executed by the claimant or a proper party on his or her behalf on the prescribed form and filed with the Office within six months from the date of mailing of the notice.

(c) If before the notice specified in paragraph (b) of this section is sent, or within six months after such notice is sent, the claimant dies without having executed and filed a prescribed form, or without having had one executed and filed in his or her behalf, the Office shall upon receipt of notice of the claimant's death advise his or her estate, or those living at his or her last known address, in writing that for the claim to be considered, a prescribed claim form must be executed and filed by a person authorized to do so on behalf of the claimant's estate within six months of the date of the later notice.

(d) Claims based upon written statements indicating an intention to claim benefits not perfected in accordance with this section shall not be processed.

§ 725.306 Withdrawal of a claim.

(a) A claimant or an individual authorized to execute a claim on a claimant's behalf or on behalf of claimant's estate under § 725.305, may withdraw a previously filed claim provided that:

(1) He or she files a written request with the appropriate adjudication officer indicating the reasons for seeking withdrawal of the claim;

(2) The appropriate adjudication officer approves the request for withdrawal on the grounds that it is in the best interests of the claimant or his or her estate, and;

(3) Any payments made to the claimant in accordance with § 725.522 are reimbursed.

(b) When a claim has been withdrawn under paragraph (a) of this section, the claim will be considered not to have been filed.

§ 725.307 Cancellation of a request for withdrawal.

At any time prior to approval, a request for withdrawal may be canceled by a written request of the claimant or a person authorized to act on the claimant's behalf or on behalf of the claimant's estate.

§ 725.308 Time limits for filing claims.

(a) A claim for benefits filed under this part by, or on behalf of, a miner shall be filed within three years after a medical determination of total disability due to pneumoconiosis which has been communicated to the miner or a person responsible for the care of the miner, or within three years after the date of enactment of the Black Lung Benefits Reform Act of 1977, whichever is later. There is no time limit on the filing of a claim by the survivor of a miner.

(b) A miner who is receiving benefits under part B of title IV of the Act and who is notified by HEW of the right to seek medical benefits may file a claim for medical benefits under part C of title IV of the Act and this part. The Secretary of Health, Education, and Welfare is required to notify each miner receiving benefits under part B of this right. Notwithstanding the provisions of paragraph (a) of this section, a miner notified of his or her rights under this paragraph may file a claim under this part on or before December 31, 1980. Any claim filed after that date shall be untimely unless the time for

filing has been enlarged for good cause shown.

(c) There shall be a rebuttable presumption that every claim for benefits is timely filed. However, except as provided in paragraph (b) of this section, the time limits in this section are mandatory and may not be waived or tolled except upon a showing of extraordinary circumstances.

§ 725.309 Additional claims; effect of a prior denial of benefits.

(a) A claimant whose claim for benefits was previously approved under part B of title IV of the Act may file a claim for benefits under this part as provided in §§ 725.308(b) and 725.702.

(b) If a claimant files a claim under this part while another claim filed by the claimant under this part is still pending, the later claim shall be merged with the earlier claim for all purposes. For purposes of this section, a claim shall be considered pending if it has not yet been finally denied.

(c) If a claimant files a claim under this part within one year after the effective date of a final order denying a claim previously filed by the claimant under this part (see § 725.502(a)(2)), the later claim shall be considered a request for modification of the prior denial and shall be processed and adjudicated under § 725.310.

(d) If a claimant files a claim under this part more than one year after the effective date of a final order denying a claim previously filed by the claimant under this part (see § 725.502(a)(2)), the later claim shall be considered a subsequent claim for benefits. A subsequent claim shall be processed and adjudicated in accordance with the provisions of subparts E and F of this part, except that the claim shall be denied unless the claimant demonstrates that one of the applicable conditions of entitlement (see §§ 725.202(d) (miner), 725.212 (spouse), 725.218 (child), and 725.222 (parent, brother, or sister)) has changed since the date upon which the order denying the prior claim became final. The applicability of this paragraph may be waived by the operator or fund, as appropriate. The following additional rules shall apply to the adjudication of a subsequent claim:

(1) Any evidence submitted in connection with any prior claim shall be made a part of the record in the subsequent claim, provided that it was not excluded in the adjudication of the prior claim.

(2) For purposes of this section, the applicable conditions of entitlement shall be limited to those conditions upon which the prior denial was based. For example, if the claim was denied solely on the basis that the individual was not a miner, the subsequent claim must be denied unless the individual worked as a miner following the prior denial. Similarly, if the claim was denied because the miner did not meet one or more of the eligibility criteria contained in part 718 of this subchapter, the subsequent claim must be denied unless the miner meets at least one of the criteria that he or she did not meet previously.

(3) If the applicable condition(s) of entitlement relate to the miner's physical condition, the subsequent claim may be approved only if new evidence submitted in connection with the subsequent claim establishes at least one applicable condition of entitlement. A subsequent claim filed by a surviving spouse, child, parent, brother, or sister shall be denied unless the applicable conditions of entitlement in such claim include at least one condition unrelated to the miner's physical condition at the time of his death.

(4) If the claimant demonstrates a change in one of the applicable conditions of entitlement, no findings made in connection with the prior claim, except those based on a party's failure to contest an issue (see § 725.463), shall be binding on any party in the adjudication of the subsequent claim. However, any stipulation made by any party in connection with the prior claim shall be binding on that party in the adjudication of the subsequent claim.

(5) In any case in which a subsequent claim is awarded, no benefits may be paid for any period prior to the date upon which the order denying the prior claim became final.

(e) Notwithstanding any other provision of this part or part 727 of this subchapter (see § 725.4(d)), a person may exercise the right of review provided in paragraph (c) of § 727.103 at the same

time such person is pursuing an appeal of a previously denied part B claim under the law as it existed prior to March 1, 1978. If the part B claim is ultimately approved as a result of the appeal, the claimant must immediately notify the Secretary of Labor and, where appropriate, the coal mine operator, and all duplicate payments made under part C shall be considered an overpayment and arrangements shall be made to insure the repayment of such overpayments to the fund or an operator, as appropriate.

(f) In any case involving more than one claim filed by the same claimant, under no circumstances are duplicate benefits payable for concurrent periods of eligibility. Any duplicate benefits paid shall be subject to collection or offset under subpart H of this part.

§ 725.310 Modification of awards and denials.

(a) Upon his or her own initiative, or upon the request of any party on grounds of a change in conditions or because of a mistake in a determination of fact, the district director may, at any time before one year from the date of the last payment of benefits, or at any time before one year after the denial of a claim, reconsider the terms of an award or denial of benefits.

(b) Modification proceedings shall be conducted in accordance with the provisions of this part as appropriate, except that the claimant and the operator, or group of operators or the fund, as appropriate, shall each be entitled to submit no more than one additional chest X-ray interpretation, one additional pulmonary function test, one additional arterial blood gas study, and one additional medical report in support of its affirmative case along with such rebuttal evidence and additional statements as are authorized by paragraphs (a)(2)(ii) and (a)(3)(ii) of § 725.414. Modification proceedings shall not be initiated before an administrative law judge or the Benefits Review Board.

(c) At the conclusion of modification proceedings before the district director, the district director may issue a proposed decision and order (§ 725.418) or, if appropriate, deny the claim by reason of abandonment (§ 725.409). In any case in which the district director has initiated modification proceedings on his own initiative to alter the terms of an award or denial of benefits issued by an administrative law judge, the district director shall, at the conclusion of modification proceedings, forward the claim for a hearing (§ 725.421). In any case forwarded for a hearing, the administrative law judge assigned to hear such case shall consider whether any additional evidence submitted by the parties demonstrates a change in condition and, regardless of whether the parties have submitted new evidence, whether the evidence of record demonstrates a mistake in a determination of fact.

(d) An order issued following the conclusion of modification proceedings may terminate, continue, reinstate, increase or decrease benefit payments or award benefits. Such order shall not affect any benefits previously paid, except that an order increasing the amount of benefits payable based on a finding of a mistake in a determination of fact may be made effective on the date from which benefits were determined payable by the terms of an earlier award. In the case of an award which is decreased, no payment made in excess of the decreased rate prior to the date upon which the party requested reconsideration under paragraph (a) of this section shall be subject to collection or offset under subpart H of this part, provided the claimant is without fault as defined by § 725.543. In the case of an award which is decreased following the initiation of modification by the district director, no payment made in excess of the decreased rate prior to the date upon which the district director initiated modification proceedings under paragraph (a) shall be subject to collection or offset under subpart H of this part, provided the claimant is without fault as defined by § 725.543. In the case of an award which has become final and is thereafter terminated, no payment made prior to the date upon which the party requested reconsideration under paragraph (a) shall be subject to collection or offset under subpart H of this part. In the case of an award which has become final and is thereafter terminated following the initiation of modification by the district director, no

payment made prior to the date upon which the district director initiated modification proceedings under paragraph (a) shall be subject to collection or offset under subpart H of this part.

§ 725.311 Communications with respect to claims; time computations.

(a) Unless otherwise specified by this part, all requests, responses, notices, decisions, orders, or other communications required or permitted by this part shall be in writing.

(b) If required by this part, any document, brief, or other statement submitted in connection with the adjudication of a claim under this part shall be sent to each party to the claim by the submitting party. If proof of service is required with respect to any communication, such proof of service shall be submitted to the appropriate adjudication officer and filed as part of the claim record.

(c) In computing any period of time described in this part, by any applicable statute, or by the order of any adjudication officer, the day of the act or event from which the designated period of time begins to run shall not be included. The last day of the period shall be included unless it is a Saturday, Sunday, or legal holiday, in which event the period extends until the next day which is not a Saturday, Sunday, or legal holiday. ''Legal holiday'' includes New Year's Day, Birthday of Martin Luther King, Jr., Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day and any other day appointed as a holiday by the President or the Congress of the United States.

(d) In computing any period of time described in this part in which the period within which to file a response commences upon receipt of a document, it shall be presumed, in the absence of evidence to the contrary, that the document was received on the seventh day after it was mailed. In any case in which a provision of this part requires a document to be sent to a person or party by certified mail, and the document is not sent by certified mail, but the person or party actually received the document, the document shall be deemed to have been sent in compliance with the provisions of this part. In such a case, any time period which commences upon the service of the document shall commence on the date the document was received.

Subpart D—Adjudication Officers; Parties and Representatives

§ 725.350 Who are the adjudication officers?

(a) *General*. The persons authorized by the Secretary of Labor to accept evidence and decide claims on the basis of such evidence are called ''adjudication officers.'' This section describes the status of black lung claims adjudication officers.

(b) *District Director*. The district director is that official of the DCMWC or his designee who is authorized to perform functions with respect to the development, processing, and adjudication of claims in accordance with this part.

(c) *Administrative law judge*. An administrative law judge is that official appointed pursuant to 5 U.S.C. 3105 (or Public Law 94–504) who is qualified to preside at hearings under 5 U.S.C. 557 and is empowered by the Secretary to conduct formal hearings with respect to, and adjudicate, claims in accordance with this part. A person appointed under Public Law 94–504 shall not be considered an administrative law judge for purposes of this part for any period after March 1, 1979.

§ 725.351 Powers of adjudication officers.

(a) *District Director*. The district director is authorized to:

(1) Make determinations with respect to claims as is provided in this part;

(2) Conduct conferences and informal discovery proceedings as provided in this part;

(3) Compel the production of documents by the issuance of a subpoena;

(4) Prepare documents for the signature of parties;

(5) Issue appropriate orders as provided in this part; and

(6) Do all other things necessary to enable him or her to discharge the duties of the office.

(b) Administrative Law Judge. An administrative law judge is authorized to:

(1) Conduct formal hearings in accordance with the provisions of this part;

(2) Administer oaths and examine witnesses;

(3) Compel the production of documents and appearance of witnesses by the issuance of subpoenas;

(4) Issue decisions and orders with respect to claims as provided in this part; and

(5) Do all other things necessary to enable him or her to discharge the duties of the office.

(c) If any person in proceedings before an adjudication officer disobeys or resists any lawful order or process, or misbehaves during a hearing or so near the place thereof as to obstruct the same, or neglects to produce, after having been ordered to do so, any pertinent book, paper or document, or refuses to appear after having been subpoenaed, or upon appearing refuses to take the oath as a witness, or after having taken the oath refuses to be examined according to law, the district director, or the administrative law judge responsible for the adjudication of the claim, shall certify the facts to the Federal district court having jurisdiction in the place in which he or she is sitting (or to the U.S. District Court for the District of Columbia if he or she is sitting in the District) which shall thereupon in a summary manner hear the evidence as to the acts complained of, and, if the evidence so warrants, punish such person in the same manner and to the same extent as for a contempt committed before the court, or commit such person upon the same condition as if the doing of the forbidden act had occurred with reference to the process or in the presence of the court.

§ 725.352 Disqualification of adjudication officer.

(a) No adjudication officer shall conduct any proceedings in a claim in which he or she is prejudiced or partial, or where he or she has any interest in the matter pending for decision. A decision to withdraw from the consideration of a claim shall be within the discretion of the adjudication officer. If that adjudication officer withdraws, another officer shall be designated by the Director or the Chief Administrative Law Judge, as the case may be, to complete the adjudication of the claim.

(b) No adjudication officer shall be permitted to appear or act as a representative of a party under this part while such individual is employed as an adjudication officer. No adjudication officer shall be permitted at any time to appear or act as a representative in connection with any case or claim in which he or she was personally involved. No fee or reimbursement shall be awarded under this part to an individual who acts in violation of this paragraph.

(c) No adjudication officer shall act in any claim involving a party which employed such adjudication officer within one year before the adjudication of such claim.

(d) Notwithstanding paragraph (a) of this section, no adjudication officer shall be permitted to act in any claim involving a party who is related to the adjudication officer by consanguinity or affinity within the third degree as determined by the law of the place where such party is domiciled. Any action taken by an adjudication officer in knowing violation of this paragraph shall be void.

§ 725.360 Parties to proceedings.

(a) Except as provided in § 725.361, no person other than the Secretary of Labor and authorized personnel of the Department of Labor shall participate at any stage in the adjudication of a claim for benefits under this part, unless such person is determined by the appropriate adjudication officer to qualify under the provisions of this section as a party to the claim. The following persons shall be parties:

(1) The claimant;

(2) A person other than a claimant, authorized to execute a claim on such claimant's behalf under § 725.301;

(3) Any coal mine operator notified under § 725.407 of its possible liability for the claim;

(4) Any insurance carrier of such operator; and

(5) The Director in all proceedings relating to a claim for benefits under this part.

(b) A widow, child, parent, brother, or sister, or the representative of a decedent's estate, who makes a showing in writing that his or her rights with respect to benefits may be prejudiced by a decision of an adjudication officer, may be made a party.

(c) Any coal mine operator or prior operator or insurance carrier which has not been notified under § 725.407 and which makes a showing in writing that its rights may be prejudiced by a decision of an adjudication officer may be made a party.

(d) Any other individual may be made a party if that individual's rights with respect to benefits may be prejudiced by a decision to be made.

§ 725.361 Party amicus curiae.

At the discretion of the Chief Administrative Law Judge or the administrative law judge assigned to the case, a person or entity which is not a party may be allowed to participate amicus curiae in a formal hearing only as to an issue of law. A person may participate amicus curiae in a formal hearing upon written request submitted with supporting arguments prior to the hearing. If the request is granted, the administrative law judge hearing the case will inform the party of the extent to which participation will be permitted. The request may, however, be denied summarily and without explanation.

§ 725.362 Representation of parties.

(a) Except for the Secretary of Labor, whose interests shall be represented by the Solicitor of Labor or his or her designee, each of the parties may appoint an individual to represent his or her interest in any proceeding for determination of a claim under this part. Such appointment shall be made in writing or on the record at the hearing. An attorney qualified in accordance with § 725.363(a) shall file a written declaration that he or she is authorized to represent a party, or declare his or her representation on the record at a formal hearing. Any other person (see § 725.363(b)) shall file a written notice of appointment signed by the party or his or her legal guardian, or enter his or her appearance on the record at a formal hearing if the party he or she seeks to represent is present and consents to the representation. Any written declaration or notice required by this section shall include the OWCP number assigned by the Office and shall be sent to the Office or, for representation at a formal hearing, to the Chief Administrative Law Judge. In any case, such representative must be qualified under § 725.363. No authorization for representation or agreement between a claimant and representative as to the amount of a fee, filed with the Social Security Administration in connection with a claim under part B of title IV of the Act, shall be valid under this part. A claimant who has previously authorized a person to represent him or her in connection with a claim originally filed under part B of title IV may renew such authorization by filing a statement to such effect with the Office or appropriate adjudication officer.

(b) Any party may waive his or her right to be represented in the adjudication of a claim. If an adjudication officer determines, after an appropriate inquiry has been made, that a claimant who has been informed of his or her right to representation does not wish to obtain the services of a representative, such adjudication officer shall proceed to consider the claim in accordance with this part, unless it is apparent that the claimant is, for any reason, unable to continue without the help of a representative. However, it shall not be necessary for an adjudication officer to inquire as to the ability of a claimant to proceed without representation in any adjudication taking place without a hearing. The failure of a claimant to obtain representation in an adjudication taking place without a hearing shall be considered a waiver of the claimant's right to representation. However, at any time during the processing or adjudication of a claim, any claimant may revoke such waiver and obtain a representative.

§ 725.363 Qualification of representative.

(a) *Attorney*. Any attorney in good standing who is admitted to practice before a court of a State, territory, district, or insular possession, or before the Supreme Court of the United

States or other Federal court and is not, pursuant to any provision of law, prohibited from acting as a representative, may be appointed as a representative.

(b) *Other person*. With the approval of the adjudication officer, any other person may be appointed as a representative so long as that person is not, pursuant to any provision of law, prohibited from acting as a representative.

§ 725.364 Authority of representative.

A representative, appointed and qualified as provided in §§ 725.362 and 725.363, may make or give on behalf of the party he or she represents, any request or notice relative to any proceeding before an adjudication officer, including formal hearing and review, except that such representative may not execute a claim for benefits, unless he or she is a person designated in § 725.301 as authorized to execute a claim. A representative shall be entitled to present or elicit evidence and make allegations as to facts and law in any proceeding affecting the party represented and to obtain information with respect to the claim of such party to the same extent as such party. Notice given to any party of any administrative action, determination, or decision, or request to any party for the production of evidence shall be sent to the representative of such party and such notice or request shall have the same force and effect as if it had been sent to the party represented.

§ 725.365 Approval of representative's fees; lien against benefits.

No fee charged for representation services rendered to a claimant with respect to any claim under this part shall be valid unless approved under this subpart. No contract or prior agreement for a fee shall be valid. In cases where the obligation to pay the attorney's fee is upon the claimant, the amount of the fee awarded may be made a lien upon the benefits due under an award and the adjudication officer shall fix, in the award approving the fee, such lien and the manner of payment of the fee. Any representative who is not an attorney may be awarded a fee for services under this subpart, except that no lien may be imposed with respect to such representative's fee.

§ 725.366 Fees for representatives.

(a) A representative seeking a fee for services performed on behalf of a claimant shall make application therefor to the district director, administrative law judge, or appropriate appellate tribunal, as the case may be, before whom the services were performed. The application shall be filed and served upon the claimant and all other parties within the time limits allowed by the district director, administrative law judge, or appropriate appellate tribunal. The application shall be supported by a complete statement of the extent and character of the necessary work done, and shall indicate the professional status (e.g., attorney, paralegal, law clerk, lay representative or clerical) of the person performing such work, and the customary billing rate for each such person. The application shall also include a listing of reasonable unreimbursed expenses, including those for travel, incurred by the representative or an employee of a representative in establishing the claimant's case. Any fee requested under this paragraph shall also contain a description of any fee requested, charged, or received for services rendered to the claimant before any State or Federal court or agency in connection with a related matter.

(b) Any fee approved under paragraph (a) of this section shall be reasonably commensurate with the necessary work done and shall take into account the quality of the representation, the qualifications of the representative, the complexity of the legal issues involved, the level of proceedings to which the claim was raised, the level at which the representative entered the proceedings, and any other information which may be relevant to the amount of fee requested. No fee approved shall include payment for time spent in preparation of a fee application. No fee shall be approved for work done on claims filed between December 30, 1969, and June 30, 1973, under part B of title IV of the Act, except for services rendered on behalf of the claimant in regard to the review of the claim under

section 435 of the Act and part 727 of this subchapter (see § 725.4(d)).

(c) In awarding a fee, the appropriate adjudication officer shall consider, and shall add to the fee, the amount of reasonable and unreimbursed expenses incurred in establishing the claimant's case. Reimbursement for travel expenses incurred by an attorney shall be determined in accordance with the provisions of § 725.459(a). No reimbursement shall be permitted for expenses incurred in obtaining medical or other evidence which has previously been submitted to the Office in connection with the claim.

(d) Upon receipt of a request for approval of a fee, such request shall be reviewed and evaluated by the appropriate adjudication officer and a fee award issued. Any party may request reconsideration of a fee awarded by the adjudication officer. A revised or modified fee award may then be issued, if appropriate.

(e) Each request for reconsideration or review of a fee award shall be in writing and shall contain supporting statements or information pertinent to any increase or decrease requested. If a fee awarded by a district director is disputed, such award shall be appealable directly to the Benefits Review Board. In such a fee dispute case, the record before the Board shall consist of the order of the district director awarding or denying the fee, the application for a fee, any written statement in opposition to the fee and the documentary evidence contained in the file which verifies or refutes any item claimed in the fee application.

§ 725.367 Payment of a claimant's attorney's fee by responsible operator or fund.

(a) An attorney who represents a claimant in the successful prosecution of a claim for benefits may be entitled to collect a reasonable attorney's fee from the responsible operator that is ultimately found liable for the payment of benefits, or, in a case in which there is no operator who is liable for the payment of benefits, from the fund. Generally, the operator or fund liable for the payment of benefits shall be liable for the payment of the claimant's attorney's fees where the operator or fund, as appropriate, took action, or acquiesced in action, that created an adversarial relationship between itself and the claimant. The fees payable under this section shall include reasonable fees for necessary services performed prior to the creation of the adversarial relationship. Circumstances in which a successful attorney's fees shall be payable by the responsible operator or the fund include, but are not limited to, the following:

(1) The responsible operator designated by the district director (see § 725.410(a)(3)) fails to accept the claimant's entitlement to benefits within the 30-day period provided by § 725.412(b) and is ultimately determined to be liable for benefits. The operator shall be liable for an attorney's fee with respect to all necessary services performed by the claimant's attorney;

(2) There is no operator that may be held liable for the payment of benefits, and the district director issues a schedule for the submission of additional evidence under § 725.410. The fund shall be liable for an attorney's fee with respect to all necessary services performed by the claimant's attorney;

(3) The claimant submits a bill for medical treatment, and the party liable for the payment of benefits declines to pay the bill on the grounds that the treatment is unreasonable, or is for a condition that is not compensable. The responsible operator or fund, as appropriate, shall be liable for an attorney's fee with respect to all necessary services performed by the claimant's attorney;

(4) A beneficiary seeks an increase in the amount of benefits payable, and the responsible operator or fund contests the claimant's right to that increase. If the beneficiary is successful in securing an increase in the amount of benefits payable, the operator or fund shall be liable for an attorney's fee with respect to all necessary services performed by the beneficiary's attorney;

(5) The responsible operator or fund seeks a decrease in the amount of benefits payable. If the beneficiary is successful in resisting the request for a decrease in the amount of benefits payable, the operator or fund shall be liable for an attorney's fee with respect to all necessary services performed by the beneficiary's attorney. A request for information clarifying the amount of benefits payable shall not be considered a request to decrease that amount.

(b) Any fee awarded under this section shall be in addition to the award of benefits, and shall be awarded, in an order, by the district director, administrative law judge, Board or court, before whom the work was performed. The operator or fund shall pay such fee promptly and directly to the claimant's attorney in a lump sum after the award of benefits becomes final.

(c) Section 205(a) of the Black Lung Benefits Amendments of 1981, Public Law 97–119, amended section 422 of the Act and relieved operators and carriers from liability for the payment of benefits on certain claims. Payment of benefits on those claims was made the responsibility of the fund. The claims subject to this transfer of liability are described in § 725.496. On claims subject to the transfer of liability described in this paragraph the fund will pay all fees and costs which have been or will be awarded to claimant's attorneys which were or would have become the liability of an operator or carrier but for the enactment of the 1981 Amendments and which have not already been paid by such operator or carrier. Section 9501(d)(7) of the Internal Revenue Code (26 U.S.C.), which was also enacted as a part of the 1981 Amendments to the Act, expressly prohibits the fund from reimbursing an operator or carrier for any attorney fees or costs which it has paid on cases subject to the transfer of liability provisions.

Subpart E—Adjudication of Claims by the District Director

§ 725.401 Claims development—general.

After a claim has been received by the district director, the district director shall take such action as is necessary to develop, process, and make determinations with respect to the claim as provided in this subpart.

§ 725.402 Approved State workers' compensation law.

If a district director determines that any claim filed under this part is one subject to adjudication under a workers' compensation law approved under part 722 of this subchapter, he or she shall advise the claimant of this determination and of the Act's requirement that the claim must be filed under the applicable State workers' compensation law. The district director shall then prepare a proposed decision and order dismissing the claim for lack of jurisdiction pursuant to § 725.418 and proceed as appropriate.

§ 725.403 [Reserved]

§ 725.404 Development of evidence—general.

(a) *Employment history*. Each claimant shall furnish the district director with a complete and detailed history of the coal miner's employment and, upon request, supporting documentation.

(b) *Matters of record*. Where it is necessary to obtain proof of age, marriage or termination of marriage, death, family relationship, dependency (see subpart B of this part), or any other fact which may be proven as a matter of public record, the claimant shall furnish such proof to the district director upon request.

(c) *Documentary evidence*. If a claimant is required to submit documents to the district director, the claimant shall submit either the original, a certified copy or a clear readable copy thereof. The district director or administrative law judge may require the submission of an original document or certified copy thereof, if necessary.

(d) *Submission of insufficient evidence*. In the event a claimant submits insufficient evidence regarding any matter, the district director shall inform the claimant of what further evidence is necessary and request that such evidence be submitted within a specified reasonable time which may, upon request, be extended for good cause.

§ 725.405 Development of medical evidence; scheduling of medical examinations and tests.

(a) Upon receipt of a claim, the district director shall ascertain whether the claim was filed by or on account of a miner as defined in § 725.202, and in the case of a claim filed on account of a deceased miner, whether the claim was filed by an eligible survivor of such miner as defined in subpart B of this part.

(b) In the case of a claim filed by or on behalf of a miner, the district director shall, where necessary, schedule the miner for a medical examination and testing under § 725.406.

(c) In the case of a claim filed by or on behalf of a survivor of a miner, the district director shall obtain whatever medical evidence is necessary and available for the development and evaluation of the claim.

(d) The district director shall, where appropriate, collect other evidence necessary to establish:

(1) The nature and duration of the miner's employment; and

(2) All other matters relevant to the determination of the claim.

(e) If at any time during the processing of the claim by the district director, the evidence establishes that the claimant is not entitled to benefits under the Act, the district director may terminate evidentiary development of the claim and proceed as appropriate.

§ 725.406 Medical examinations and tests.

(a) The Act requires the Department to provide each miner who applies for benefits with the opportunity to undergo a complete pulmonary evaluation at no expense to the miner. A complete pulmonary evaluation includes a report of physical examination, a pulmonary function study, a chest roentgenogram and, unless medically contraindicated, a blood gas study.

(b) As soon as possible after a miner files an application for benefits, the district director will provide the miner with a list of medical facilities and physicians in the state of the miner's residence and states contiguous to the state of the miner's residence that the Office has authorized to perform complete pulmonary evaluations. The miner shall select one of the facilities or physicians on the list, *provided* that the miner may not select any physician to whom the miner or the miner's spouse is related to the fourth degree of consanguinity, and the miner may not select any physician who has examined or provided medical treatment to the miner within the twelve months preceding the date of the miner's application. The district director will make arrangements for the miner to be given a complete pulmonary evaluation by that facility or physician. The results of the complete pulmonary evaluation shall not be counted as evidence submitted by the miner under § 725.414.

(c) If any medical examination or test conducted under paragraph (a) of this section is not administered or reported in substantial compliance with the provisions of part 718 of this subchapter, or does not provide sufficient information to allow the district director to decide whether the miner is eligible for benefits, the district director shall schedule the miner for further examination and testing. Where the deficiencies in the report are the result of a lack of effort on the part of the miner, the miner will be afforded one additional opportunity to produce a satisfactory result. In order to determine whether any medical examination or test was administered and reported in substantial compliance with the provisions of part 718 of this subchapter, the district director may have any component of such examination or test reviewed by a physician selected by the district director.

(d) After the physician completes the report authorized by paragraph (a), the district director will inform the miner that he may elect to have the results of the objective testing sent to his treating physician for use in preparing a medical opinion. The district director will also inform the claimant that any medical opinion submitted by his treating physician will count as one of the two medical opinions that the miner may submit under § 725.414 of this part.

(e) The cost of any medical examination or test authorized under this section, including the cost of travel to and from the examination, shall be paid by

the fund. No reimbursement for overnight accommodations shall be authorized unless the district director determines that an adequate testing facility is unavailable within one day's round trip travel by automobile from the miner's residence. The fund shall be reimbursed for such payments by an operator, if any, found liable for the payment of benefits to the claimant. If an operator fails to repay such expenses, with interest, upon request of the Office, the entire amount may be collected in an action brought under section 424 of the Act and § 725.603 of this part.

§ 725.407 Identification and notification of responsible operator.

(a) Upon receipt of the miner's employment history, the district director shall investigate whether any operator may be held liable for the payment of benefits as a responsible operator in accordance with the criteria contained in Subpart G of this part.

(b) The district director may identify one or more operators potentially liable for the payment of benefits in accordance with the criteria set forth in § 725.495 of this part. The district director shall notify each such operator of the existence of the claim. Where the records maintained by the Office pursuant to part 726 of this subchapter indicate that the operator had obtained a policy of insurance, and the claim falls within such policy, the notice provided pursuant to this section shall also be sent to the operator's carrier. Any operator or carrier notified of the claim shall thereafter be considered a party to the claim in accordance with § 725.360 of this part unless it is dismissed by an adjudication officer and is not thereafter notified again of its potential liability.

(c) The notification issued pursuant to this section shall include a copy of the claimant's application and a copy of all evidence obtained by the district director relating to the miner's employment. The district director may request the operator to answer specific questions, including, but not limited to, questions related to the nature of its operations, its relationship with the miner, its financial status, including any insurance obtained to secure its obligations under the Act, and its relationship with other potentially liable operators. A copy of any notification issued pursuant to this section shall be sent to the claimant by regular mail.

(d) If at any time before a case is referred to the Office of Administrative Law Judges, the district director determines that an operator which may be liable for the payment of benefits has not been notified under this section or has been incorrectly dismissed pursuant to § 725.410(a)(3), the district director shall give such operator notice of its potential liability in accordance with this section. The adjudication officer shall then take such further action on the claim as may be appropriate. There shall be no time limit applicable to a later identification of an operator under this paragraph if the operator fraudulently concealed its identity as an employer of the miner. The district director may not notify additional operators of their potential liability after a case has been referred to the Office of Administrative Law Judges, unless the case was referred for a hearing to determine whether the claim was properly denied as abandoned pursuant to § 725.409.

§ 725.408 Operator's response to notification.

(a)(1) An operator which receives notification under § 725.407 shall, within 30 days of receipt, file a response indicating its intent to accept or contest its identification as a potentially liable operator. The operator's response shall also be sent to the claimant by regular mail.

(2) If the operator contests its identification, it shall, on a form supplied by the district director, state the precise nature of its disagreement by admitting or denying each of the following assertions. In answering these assertions, the term ''operator'' shall include any operator for which the identified operator may be considered a successor operator pursuant to § 725.492.

(i) That the named operator was an operator for any period after June 30, 1973;

(ii) That the operator employed the miner as a miner for a cumulative period of not less than one year;

(iii) That the miner was exposed to coal mine dust while working for the operator;

(iv) That the miner's employment with the operator included at least one working day after December 31, 1969; and

(v) That the operator is capable of assuming liability for the payment of benefits.

(3) An operator which receives notification under § 725.407, and which fails to file a response within the time limit provided by this section, shall not be allowed to contest its liability for the payment of benefits on any of the grounds set forth in paragraph (a)(2).

(b)(1) Within 90 days of the date on which it receives notification under § 725.407, an operator may submit documentary evidence in support of its position.

(2) No documentary evidence relevant to the grounds set forth in paragraph (a)(2) may be admitted in any further proceedings unless it is submitted within the time limits set forth in this section.

§ 725.409 Denial of a claim by reason of abandonment.

(a) A claim may be denied at any time by the district director by reason of abandonment where the claimant fails:

(1) To undergo a required medical examination without good cause; or,

(2) To submit evidence sufficient to make a determination of the claim; or,

(3) To pursue the claim with reasonable diligence; or,

(4) To attend an informal conference without good cause.

(b)(1) If the district director determines that a denial by reason of abandonment under paragraphs (a)(1) through (3) of this section is appropriate, he or she shall notify the claimant of the reasons for such denial and of the action which must be taken to avoid a denial by reason of abandonment. If the claimant completes the action requested within the time allowed, the claim shall be developed, processed and adjudicated as specified in this part. If the claimant does not fully comply with the action requested by the district director, the district director shall notify the claimant that the claim has been denied by reason of abandonment. Such notification shall be served on the claimant and all other parties to the claim by certified mail.

(2) In any case in which a claimant has failed to attend an informal conference and has not provided the district director with his reasons for failing to attend, the district director shall ask the claimant to explain his absence. In considering whether the claimant had good cause for his failure to attend the conference, the district director shall consider all relevant circumstances, including the age, education, and health of the claimant, as well as the distance between the claimant's residence and the location of the conference. If the district director concludes that the claimant had good cause for failing to attend the conference, he may continue processing the claim, including, where appropriate under § 725.416, the scheduling of an informal conference. If the claimant does not supply the district director with his reasons for failing to attend the conference within 30 days of the date of the district director's request, or the district director concludes that the reasons supplied by the claimant do not establish good cause, the district director shall notify the claimant that the claim has been denied by reason of abandonment. Such notification shall be served on the claimant and all other parties to the claim by certified mail.

(c) The denial of a claim by reason of abandonment shall become effective and final unless, within 30 days after the denial is issued, the claimant requests a hearing. Following the expiration of the 30-day period, a new claim may be filed at any time pursuant to § 725.309. For purposes of § 725.309, a denial by reason of abandonment shall be deemed a finding that the claimant has not established any applicable condition of entitlement. If the claimant timely requests a hearing, the district director shall refer the case to the Office of Administrative Law Judges in accordance with § 725.421. Except upon the motion or written agreement of the Director, the hearing will be limited to the issue of whether the claim was properly denied by reason of abandonment. If the hearing is limited to the

issue of abandonment and the administrative law judge determines that the claim was not properly denied by reason of abandonment, he shall remand the claim to the district director for the completion of administrative processing.

§ 725.410 Submission of additional evidence.

(a) After the district director completes the development of medical evidence under § 725.405 of this part, including the complete pulmonary evaluation authorized by § 725.406, and receives the responses and evidence submitted pursuant to § 725.408, he shall issue a schedule for the submission of additional evidence. The schedule shall contain the following information:

(1) If the claim was filed by, or on behalf of, a miner, the schedule shall contain a summary of the complete pulmonary evaluation administered pursuant to § 725.406. If the claim was filed by, or on behalf of, a survivor, the schedule shall contain a summary of any medical evidence developed by the district director pursuant to § 725.405(c).

(2) The schedule shall contain the district director's preliminary analysis of the medical evidence. If the district director believes that the evidence fails to establish any necessary element of entitlement, he shall inform the claimant of the element of entitlement not established and the reasons for his conclusions and advise the claimant that, unless he submits additional evidence, the district director will issue a proposed decision and order denying the claim.

(3) The schedule shall contain the district director's designation of a responsible operator liable for the payment of benefits. In the event that the district director has designated as the responsible operator an employer other than the employer who last employed the claimant as a miner, the district director shall include, with the schedule, a copy of the statements required by § 725.495(d) of this part. The district director may, in his discretion, dismiss as parties any of the operators notified of their potential liability pursuant to § 725.407. If the district director thereafter determines that the participation of a party dismissed pursuant to this section is required, he may once again notify the operator in accordance with § 725.407(d).

(4) The schedule shall notify the claimant and the designated responsible operator that they have the right to obtain further adjudication of the claim in accordance with this subpart, and that they have the right to submit additional evidence in accordance with this subpart. The schedule shall also notify the claimant that he has the right to obtain representation, under the terms set forth in subpart D, in order to assist him. In a case in which the district director has designated a responsible operator pursuant to paragraph (a)(3), the schedule shall further notify the claimant that if the operator fails to accept the claimant's entitlement to benefits within the time limit provided by § 725.412, the cost of obtaining additional medical and other necessary evidence, along with a reasonable attorney's fee, shall be reimbursed by the responsible operator in the event that the claimant establishes his entitlement to benefits payable by that operator. In a case in which there is no operator liable for the payment of benefits, the schedule shall notify the claimant that the cost of obtaining additional medical and other necessary evidence, along with a reasonable attorney's fee, shall be reimbursed by the fund.

(b) The schedule shall allow all parties not less than 60 days within which to submit additional evidence, including evidence relevant to the claimant's eligibility for benefits and evidence relevant to the liability of the designated responsible operator, and shall provide not less than an additional 30 days within which the parties may respond to evidence submitted by other parties. Any such evidence must meet the requirements set forth in § 725.414 in order to be admitted into the record.

(c) The district director shall serve a copy of the schedule, together with a copy of all of the evidence developed, on the claimant, the designated responsible operator, and all other operators which received notification pursuant to § 725.407. The schedule shall be served on each party by certified mail.

§ 725.411 Initial adjudication in Trust Fund cases.

Notwithstanding the requirements of § 725.410 of this part, if the district director concludes that the results of the complete pulmonary evaluation support a finding of eligibility, and that there is no operator responsible for the payment of benefits, the district director shall issue a proposed decision and order in accordance with § 725.418 of this part.

§ 725.412 Operator's response.

(a)(1) Within 30 days after the district director issues a schedule pursuant to § 725.410 of this part containing a designation of the responsible operator liable for the payment of benefits, that operator shall file a response with regard to its liability. The response shall specifically indicate whether the operator agrees or disagrees with the district director's designation.

(2) If the responsible operator designated by the district director does not file a timely response, it shall be deemed to have accepted the district director's designation with respect to its liability, and to have waived its right to contest its liability in any further proceeding conducted with respect to the claim.

(b) The responsible operator designated by the district director may also file a statement accepting claimant's entitlement to benefits. If that operator fails to file a timely response to the district director's designation, the district director shall, upon receipt of such a statement, issue a proposed decision and order in accordance with § 725.418 of this part. If the operator fails to file a statement accepting the claimant's entitlement to benefits within 30 days after the district director issues a schedule pursuant to § 725.410 of this part, the operator shall be deemed to have contested the claimant's entitlement.

§ 725.413 [Reserved]

§ 725.414 Development of evidence.

(a) *Medical evidence.* (1) For purposes of this section, a medical report shall consist of a physician's written assessment of the miner's respiratory or pulmonary condition. A medical report may be prepared by a physician who examined the miner and/or reviewed the available admissible evidence. A physician's written assessment of a single objective test, such as a chest X-ray or a pulmonary function test, shall not be considered a medical report for purposes of this section.

(2)(i) The claimant shall be entitled to submit, in support of his affirmative case, no more than two chest X-ray interpretations, the results of no more than two pulmonary function tests, the results of no more than two arterial blood gas studies, no more than one report of an autopsy, no more than one report of each biopsy, and no more than two medical reports. Any chest X-ray interpretations, pulmonary function test results, blood gas studies, autopsy report, biopsy report, and physicians' opinions that appear in a medical report must each be admissible under this paragraph or paragraph (a)(4) of this section.

(ii) The claimant shall be entitled to submit, in rebuttal of the case presented by the party opposing entitlement, no more than one physician's interpretation of each chest X-ray, pulmonary function test, arterial blood gas study, autopsy or biopsy submitted by the designated responsible operator or the fund, as appropriate, under paragraph (a)(3)(i) or (a)(3)(iii) of this section and by the Director pursuant to § 725.406. In any case in which the party opposing entitlement has submitted the results of other testing pursuant to § 718.107, the claimant shall be entitled to submit one physician's assessment of each piece of such evidence in rebuttal. In addition, where the responsible operator or fund has submitted rebuttal evidence under paragraph (a)(3)(ii) or (a)(3)(iii) of this section with respect to medical testing submitted by the claimant, the claimant shall be entitled to submit an additional statement from the physician who originally interpreted the chest X-ray or administered the objective testing. Where the rebuttal evidence tends to undermine the conclusion of a physician who prepared a medical report submitted by the claimant, the claimant shall be entitled to submit an additional statement from the physician who prepared

the medical report explaining his conclusion in light of the rebuttal evidence.

(3)(i) The responsible operator designated pursuant to § 725.410 shall be entitled to obtain and submit, in support of its affirmative case, no more than two chest X-ray interpretations, the results of no more than two pulmonary function tests, the results of no more than two arterial blood gas studies, no more than one report of an autopsy, no more than one report of each biopsy, and no more than two medical reports. Any chest X-ray interpretations, pulmonary function test results, blood gas studies, autopsy report, biopsy report, and physicians' opinions that appear in a medical report must each be admissible under this paragraph or paragraph (a)(4) of this section. In obtaining such evidence, the responsible operator may not require the miner to travel more than 100 miles from his or her place of residence, or the distance traveled by the miner in obtaining the complete pulmonary evaluation provided by § 725.406 of this part, whichever is greater, unless a trip of greater distance is authorized in writing by the district director. If a miner unreasonably refuses—

(A) To provide the Office or the designated responsible operator with a complete statement of his or her medical history and/or to authorize access to his or her medical records, or

(B) To submit to an evaluation or test requested by the district director or the designated responsible operator, the miner's claim may be denied by reason of abandonment. (See § 725.409 of this part).

(ii) The responsible operator shall be entitled to submit, in rebuttal of the case presented by the claimant, no more than one physician's interpretation of each chest X-ray, pulmonary function test, arterial blood gas study, autopsy or biopsy submitted by the claimant under paragraph (a)(2)(i) of this section and by the Director pursuant to § 725.406. In any case in which the claimant has submitted the results of other testing pursuant to § 718.107, the responsible operator shall be entitled to submit one physician's assessment of each piece of such evidence in rebuttal. In addition, where the claimant has submitted rebuttal evidence under paragraph (a)(2)(ii) of this section, the responsible operator shall be entitled to submit an additional statement from the physician who originally interpreted the chest X-ray or administered the objective testing. Where the rebuttal evidence tends to undermine the conclusion of a physician who prepared a medical report submitted by the responsible operator, the responsible operator shall be entitled to submit an additional statement from the physician who prepared the medical report explaining his conclusion in light of the rebuttal evidence.

(iii) In a case in which the district director has not identified any potentially liable operators, or has dismissed all potentially liable operators under § 725.410(a)(3), the district director shall be entitled to exercise the rights of a responsible operator under this section, except that the evidence obtained in connection with the complete pulmonary evaluation performed pursuant to § 725.406 shall be considered evidence obtained and submitted by the Director, OWCP, for purposes of paragraph (a)(3)(i) of this section. In a case involving a dispute concerning medical benefits under § 725.708 of this part, the district director shall be entitled to develop medical evidence to determine whether the medical bill is compensable under the standard set forth in § 725.701 of this part.

(4) Notwithstanding the limitations in paragraphs (a)(2) and (a)(3) of this section, any record of a miner's hospitalization for a respiratory or pulmonary or related disease, or medical treatment for a respiratory or pulmonary or related disease, may be received into evidence.

(5) A copy of any documentary evidence submitted by a party must be served on all other parties to the claim. If the claimant is not represented by an attorney, the district director shall mail a copy of all documentary evidence submitted by the claimant to all other parties to the claim. Following the development and submission of affirmative medical evidence, the parties may submit rebuttal evidence in accordance with the schedule issued by the district director.

(b) *Evidence pertaining to liability*. (1) Except as provided by § 725.408(b)(2), the designated responsible operator may submit evidence to demonstrate that it is not the potentially liable operator that most recently employed the claimant.

(2) Any other party may submit evidence regarding the liability of the designated responsible operator or any other operator.

(3) A copy of any documentary evidence submitted under this paragraph must be mailed to all other parties to the claim. Following the submission of affirmative evidence, the parties may submit rebuttal evidence in accordance with the schedule issued by the district director.

(c) *Testimony*. A physician who prepared a medical report admitted under this section may testify with respect to the claim at any formal hearing conducted in accordance with subpart F of this part, or by deposition. If a party has submitted fewer than two medical reports as part of that party's affirmative case under this section, a physician who did not prepare a medical report may testify in lieu of such a medical report. The testimony of such a physician shall be considered a medical report for purposes of the limitations provided by this section. A party may offer the testimony of no more than two physicians under the provisions of this section unless the adjudication officer finds good cause under paragraph (b)(1) of § 725.456 of this part. In accordance with the schedule issued by the district director, all parties shall notify the district director of the name and current address of any potential witness whose testimony pertains to the liability of a potentially liable operator or the designated responsible operator. Absent such notice, the testimony of a witness relevant to the liability of a potentially liable operator or the designated responsible operator shall not be admitted in any hearing conducted with respect to the claim unless the administrative law judge finds that the lack of notice should be excused due to extraordinary circumstances.

(d) Except to the extent permitted by § 725.456 and § 725.310(b), the limitations set forth in this section shall apply to all proceedings conducted with respect to a claim, and no documentary evidence pertaining to liability shall be admitted in any further proceeding conducted with respect to a claim unless it is submitted to the district director in accordance with this section.

§ 725.415 Action by the district director after development of evidence.

(a) At the end of the period permitted under § 725.410(b) for the submission of evidence, the district director shall review the claim on the basis of all evidence submitted in accordance with § 725.414.

(b) After review of all evidence submitted, the district director may issue another schedule for the submission of additional evidence pursuant to § 725.410, identifying another potentially liable operator as the responsible operator liable for the payment of benefits. In such a case, the district director shall not permit the development or submission of any additional medical evidence until after he has made a final determination of the identity of the responsible operator liable for the payment of benefits. If the operator who is finally determined to be the responsible operator has not had the opportunity to submit medical evidence pursuant to § 725.410, the district director shall allow the designated responsible operator and the claimant not less than 60 days within which to submit evidence relevant to the claimant's eligibility for benefits. The designated responsible operator may elect to adopt any medical evidence previously submitted by another operator as its own evidence, subject to the limitations of § 725.414. The district director may also schedule a conference in accordance with § 725.416, issue a proposed decision and order in accordance with § 725.418, or take such other action as the district director considers appropriate.

§ 725.416 Conferences.

(a) At the conclusion of the period permitted by § 725.410(b) of this part for the submission of evidence, the district director may conduct an informal conference in any claim where it appears that such conference will assist in the voluntary resolution of any issue

raised with respect to the claim. The conference proceedings shall not be stenographically reported and sworn testimony shall not be taken. Any conference conducted pursuant to this paragraph shall be held no later than 90 days after the conclusion of the period permitted by § 725.410(b) of this part for the submission of evidence, unless one of the parties requests that the time period be extended for good cause shown. If the district director is unable to hold the conference within the time period permitted by this paragraph, he shall proceed to issue a proposed decision and order under § 725.418 of this part.

(b) The district director shall notify the parties of a definite time and place for the conference. The district director shall advise the parties that they have a right to representation at the conference, by an attorney or a lay representative, and that no conference shall take place unless the parties are represented. A coal mine operator which is self-insured, or which is covered by a policy of insurance for the claim for which a conference is scheduled, shall be deemed to be represented. The notification shall set forth the specific reasons why the district director believes that a conference will assist in the voluntary resolution of any issue raised with respect to the claim. No sanction may be imposed under paragraph (c) of this section unless the record contains a notification that meets the requirements of this section. The district director may in his or her discretion, or on the motion of any party, cancel a conference or allow any or all of the parties to participate by telephone.

(c) The unexcused failure of any party to appear at an informal conference shall be grounds for the imposition of sanctions. If the claimant fails to appear, the district director may take such steps as are authorized by § 725.409(b)(2) to deny the claim by reason of abandonment. If the responsible operator fails to appear, it shall be deemed to have waived its right to contest its potential liability for an award of benefits and, in the discretion of the district director, its right to contest any issue related to the claimant's eligibility.

(d) Any representative of an operator, of an operator's insurance carrier, or of a claimant, authorized to represent such party in accordance with paragraph (b), shall be deemed to have sufficient authority to stipulate facts or issues or agree to a final disposition of the claim.

(e) Procedures to be followed at a conference shall be within the discretion of the district director.

§ 725.417 Action at the conclusion of conference.

(a) At the conclusion of a conference, the district director shall prepare a stipulation of contested and uncontested issues which shall be signed by the parties and the district director. If a hearing is conducted with respect to the claim, this stipulation shall be submitted to the Office of Administrative Law Judges and placed in the claim record.

(b) In appropriate cases, the district director may permit a reasonable time for the submission of additional evidence following a conference, provided that such evidence does not exceed the limits set forth in § 725.414. The district director may also notify additional operators of their potential liability pursuant to § 725.407, or issue another schedule for the submission of additional evidence pursuant to § 725.410, designating another potentially liable operator as the responsible operator liable for the payment of benefits, in order to allow that operator an opportunity to submit evidence relevant to its liability for benefits as well as the claimant's eligibility for benefits.

(c) Within 20 days after the termination of all conference proceedings, the district director shall prepare and send to the parties a proposed decision and order pursuant to § 725.418 of this part.

§ 725.418 Proposed decision and order.

(a) Within 20 days after the termination of all informal conference proceedings, or, if no informal conference is held, at the conclusion of the period permitted by § 725.410(b) for the submission of evidence, the district director shall issue a proposed decision and order. A proposed decision and order is

a document, issued by the district director after the evidentiary development of the claim is completed and all contested issues, if any, are joined, which purports to resolve a claim on the basis of the evidence submitted to or obtained by the district director. A proposed decision and order shall be considered a final adjudication of a claim only as provided in § 725.419. A proposed decision and order may be issued by the district director at any time during the adjudication of any claim if:

(1) Issuance is authorized or required by this part; or,

(2) The district director determines that its issuance will expedite the adjudication of the claim.

(b) A proposed decision and order shall contain findings of fact and conclusions of law. It shall be served on all parties to the claim by certified mail.

(c) The proposed decision and order shall contain a notice of the right of any interested party to request a formal hearing before the Office of Administrative Law Judges. If the proposed decision and order is a denial of benefits, and the claimant has previously filed a request for a hearing, the proposed decision and order shall notify the claimant that the case will be referred for a hearing pursuant to the previous request unless the claimant notifies the district director that he no longer desires a hearing. If the proposed decision and order is an award of benefits, and the designated responsible operator has previously filed a request for a hearing, the proposed decision and order shall notify the operator that the case will be referred for a hearing pursuant to the previous request unless the operator notifies the district director that it no longer desires a hearing.

(d) The proposed decision and order shall reflect the district director's final designation of the responsible operator liable for the payment of benefits. No operator may be finally designated as the responsible operator unless it has received notification of its potential liability pursuant to § 725.407, and the opportunity to submit additional evidence pursuant to § 725.410. The district director shall dismiss, as parties to the claim, all other potentially liable operators that received notification pursuant to § 725.407 and that were not previously dismissed pursuant to § 725.410(a)(3).

§ 725.419 Response to proposed decision and order.

(a) Within 30 days after the date of issuance of a proposed decision and order, any party may, in writing, request a revision of the proposed decision and order or a hearing. If a hearing is requested, the district director shall refer the claim to the Office of Administrative Law Judges (see § 725.421).

(b) Any response made by a party to a proposed decision and order shall specify the findings and conclusions with which the responding party disagrees, and shall be served on the district director and all other parties to the claim.

(c) If a timely request for revision of a proposed decision and order is made, the district director may amend the proposed decision and order, as circumstances require, and serve the revised proposed decision and order on all parties or take such other action as is appropriate. If a revised proposed decision and order is issued, each party to the claim shall have 30 days from the date of issuance of that revised proposed decision and order within which to request a hearing.

(d) If no response to a proposed decision and order is sent to the district director within the period described in paragraph (a) of this section, or if no response to a revised proposed decision and order is sent to the district director within the period described in paragraph (c) of this section, the proposed decision and order shall become a final decision and order, which is effective upon the expiration of the applicable 30-day period. Once a proposed decision and order or revised proposed decision and order becomes final and effective, all rights to further proceedings with respect to the claim shall be considered waived, except as provided in § 725.310.

§ 725.420 Initial determinations.

(a) Section 9501(d)(1)(A)(1) of the Internal Revenue Code (26 U.S.C.) provides that the Black Lung Disability Trust Fund shall begin the payment of

benefits on behalf of an operator in any case in which the operator liable for such payments has not commenced payment of such benefits within 30 days after the date of an initial determination of eligibility by the Secretary. For claims filed on or after January 1, 1982, the payment of such interim benefits from the fund is limited to benefits accruing after the date of such initial determination.

(b) Except as provided in § 725.415, after the district director has determined that a claimant is eligible for benefits, on the basis of all evidence submitted by a claimant and operator, and has determined that a hearing will be necessary to resolve the claim, the district director shall in writing so inform the parties and direct the operator to begin the payment of benefits to the claimant in accordance with § 725.522. The date on which this writing is sent to the parties shall be considered the date of initial determination of the claim.

(c) If a notified operator refuses to commence payment of a claim within 30 days from the date on which an initial determination is made under this section, benefits shall be paid by the fund to the claimant in accordance with § 725.522, and the operator shall be liable to the fund, if such operator is determined liable for the claim, for all benefits paid by the fund on behalf of such operator, and, in addition, such penalties and interest as are appropriate.

§ 725.421 Referral of a claim to the Office of Administrative Law Judges.

(a) In any claim for which a formal hearing is requested or ordered, and with respect to which the district director has completed evidentiary development and adjudication without having resolved all contested issues, the district director shall refer the claim to the Office of Administrative Law Judges for a hearing.

(b) In any case referred to the Office of Administrative Law Judges under this section, the district director shall transmit to that office the following documents, which shall be placed in the record at the hearing subject to the objection of any party:

(1) Copies of the claim form or forms;

(2) Any statement, document, or pleading submitted by a party to the claim;

(3) A copy of the notification to an operator of its possible liability for the claim, and any schedule for the submission of additional evidence issued pursuant to § 725.410 designating a potentially liable operator as the responsible operator;

(4) All medical evidence submitted to the district director under this part by the claimant and the potentially liable operator designated as the responsible operator in the proposed decision and order issued pursuant to § 725.418, or the fund, as appropriate, subject to the limitations of § 725.414 of this part; this evidence shall include the results of any medical examination or test conducted pursuant to § 725.406, and all evidence relevant to the liability of the responsible operator submitted to the district director under this part;

(5) Any written stipulation of law or fact or stipulation of contested and uncontested issues entered into by the parties;

(6) Any pertinent forms submitted to the district director;

(7) The statement by the district director of contested and uncontested issues in the claim; and

(8) The district director's initial determination of eligibility or other documents necessary to establish the right of the fund to reimbursement, if appropriate. Copies of the transmittal notice shall also be sent to all parties to the claim by regular mail.

(c) A party may at any time request and obtain from the district director copies of documents transmitted to the Office of Administrative Law Judges under paragraph (b) of this section. If the party has previously been provided with such documents, additional copies may be sent to the party upon the payment of a copying fee to be determined by the district director.

§ 725.422 Legal assistance.

The Secretary or his or her designee may, upon request, provide a claimant with legal assistance in processing a claim under the Act. Such assistance may be made available to a claimant in the discretion of the Solicitor of Labor or his or her designee at any time prior

to or during the time in which the claim is being adjudicated and shall be furnished without charge to the claimant. Representation of a claimant in adjudicatory proceedings shall not be provided by the Department of Labor unless it is determined by the Solicitor of Labor that such representation is in the best interests of the black lung benefits program. In no event shall representation be provided to a claimant in a claim with respect to which the claimant's interests are adverse to those of the Secretary of Labor or the fund.

§ 725.423 Extensions of time.

Except for the 30-day time limit set forth in § 725.419, any of the time periods set forth in this subpart may be extended, for good cause shown, by filing a request for an extension with the district director prior to the expiration of the time period.

Subpart F—Hearings

§ 725.450 Right to a hearing.

Any party to a claim (see § 725.360) shall have a right to a hearing concerning any contested issue of fact or law unresolved by the district director. There shall be no right to a hearing until the processing and adjudication of the claim by the district director has been completed. There shall be no right to a hearing in a claim with respect to which a determination of the claim made by the district director has become final and effective in accordance with this part.

§ 725.451 Request for hearing.

After the completion of proceedings before the district director, or as is otherwise indicated in this part, any party may in writing request a hearing on any contested issue of fact or law (see § 725.419). A district director may on his or her own initiative refer a case for hearing. If a hearing is requested, or if a district director determines that a hearing is necessary to the resolution of any issue, the claim shall be referred to the Chief Administrative Law Judge for a hearing under § 725.421.

§ 725.452 Type of hearing; parties.

(a) A hearing held under this part shall be conducted by an administrative law judge designated by the Chief Administrative Law Judge. Except as otherwise provided by this part, all hearings shall be conducted in accordance with the provisions of 5 U.S.C. 554 *et seq*.

(b) All parties to a claim shall be permitted to participate fully at a hearing held in connection with such claim.

(c) A full evidentiary hearing need not be conducted if a party moves for summary judgment and the administrative law judge determines that there is no genuine issue as to any material fact and that the moving party is entitled to the relief requested as a matter of law. All parties shall be entitled to respond to the motion for summary judgment prior to decision thereon.

(d) If the administrative law judge believes that an oral hearing is not necessary (for any reason other than on motion for summary judgment), the judge shall notify the parties by written order and allow at least 30 days for the parties to respond. The administrative law judge shall hold the oral hearing if any party makes a timely request in response to the order.

§ 725.453 Notice of hearing.

All parties shall be given at least 30 days written notice of the date and place of a hearing and the issues to be resolved at the hearing. Such notice shall be sent to each party or representative by certified mail.

§ 725.454 Time and place of hearing; transfer of cases.

(a) The Chief Administrative Law Judge shall assign a definite time and place for a formal hearing, and shall, where possible, schedule the hearing to be held at a place within 75 miles of the claimant's residence unless an alternate location is requested by the claimant.

(b) If the claimant's residence is not in any State, the Chief Administrative Law Judge may, in his or her discretion, schedule the hearing in the country of the claimant's residence.

(c) The Chief Administrative Law Judge or the administrative law judge

assigned the case may in his or her discretion direct that a hearing with respect to a claim shall begin at one location and then later be reconvened at another date and place.

(d) The Chief Administrative Law Judge or administrative law judge assigned the case may change the time and place for a hearing, either on his or her own motion or for good cause shown by a party. The administrative law judge may adjourn or postpone the hearing for good cause shown, at any time prior to the mailing to the parties of the decision in the case. Unless otherwise agreed, at least 10 days notice shall be given to the parties of any change in the time or place of hearing.

(e) The Chief Administrative Law Judge may for good cause shown transfer a case from one administrative law judge to another.

§ 725.455 Hearing procedures; generally.

(a) *General*. The purpose of any hearing conducted under this subpart shall be to resolve contested issues of fact or law. Except as provided in § 725.421(b)(8), any findings or determinations made with respect to a claim by a district director shall not be considered by the administrative law judge.

(b) *Evidence*. The administrative law judge shall at the hearing inquire fully into all matters at issue, and shall not be bound by common law or statutory rules of evidence, or by technical or formal rules of procedure, except as provided by 5 U.S.C. 554 and this subpart. The administrative law judge shall receive into evidence the testimony of the witnesses and parties, the evidence submitted to the Office of Administrative Law Judges by the district director under § 725.421, and such additional evidence as may be submitted in accordance with the provisions of this subpart. The administrative law judge may entertain the objections of any party to the evidence submitted under this section.

(c) *Procedure*. The conduct of the hearing and the order in which allegations and evidence shall be presented shall be within the discretion of the administrative law judge and shall afford the parties an opportunity for a fair hearing.

(d) *Oral argument and written allegations*. The parties, upon request, may be allowed a reasonable time for the presentation of oral argument at the hearing. Briefs or other written statements or allegations as to facts or law may be filed by any party with the permission of the administrative law judge. Copies of any brief or other written statement shall be filed with the administrative law judge and served on all parties by the submitting party.

§ 725.456 Introduction of documentary evidence.

(a) All documents transmitted to the Office of Administrative Law Judges under § 725.421 shall be placed into evidence by the administrative law judge, subject to objection by any party.

(b)(1) Documentary evidence pertaining to the liability of a potentially liable operator and/or the identification of a responsible operator which was not submitted to the district director shall not be admitted into the hearing record in the absence of extraordinary circumstances. Medical evidence in excess of the limitations contained in § 725.414 shall not be admitted into the hearing record in the absence of good cause.

(2) Subject to the limitations in paragraph (b)(1) of this section, any other documentary material, including medical reports, which was not submitted to the district director, may be received in evidence subject to the objection of any party, if such evidence is sent to all other parties at least 20 days before a hearing is held in connection with the claim.

(3) Documentary evidence, which is not exchanged with the parties in accordance with this paragraph, may be admitted at the hearing with the written consent of the parties or on the record at the hearing, or upon a showing of good cause why such evidence was not exchanged in accordance with this paragraph. If documentary evidence is not exchanged in accordance with paragraph (b)(2) of this section and the parties do not waive the 20-day requirement or good cause is not shown, the administrative law judge shall either exclude the late evidence

from the record or remand the claim to the district director for consideration of such evidence.

(4) A medical report which is not made available to the parties in accordance with paragraph (b)(2) of this section shall not be admitted into evidence in any case unless the hearing record is kept open for at least 30 days after the hearing to permit the parties to take such action as each considers appropriate in response to such evidence. If, in the opinion of the administrative law judge, evidence is withheld from the parties for the purpose of delaying the adjudication of the claim, the administrative law judge may exclude such evidence from the hearing record and close the record at the conclusion of the hearing.

(c) Subject to paragraph (b) of this section, documentary evidence which the district director excludes from the record, and the objections to such evidence, may be submitted by the parties to the administrative law judge, who shall independently determine whether the evidence shall be admitted.

(1) If the evidence is admitted, the administrative law judge may, in his or her discretion, remand the claim to the district director for further consideration.

(2) If the evidence is admitted, the administrative law judge shall afford the opposing party or parties the opportunity to develop such additional documentary evidence as is necessary to protect the right of cross-examination.

(d) All medical records and reports submitted by any party shall be considered by the administrative law judge in accordance with the quality standards contained in part 718 of this subchapter.

(e) If the administrative law judge concludes that the complete pulmonary evaluation provided pursuant to § 725.406, or any part thereof, fails to comply with the applicable quality standards, or fails to address the relevant conditions of entitlement (see § 725.202(d)(2)(i) through (iv)) in a manner which permits resolution of the claim, the administrative law judge shall, in his or her discretion, remand the claim to the district director with instructions to develop only such additional evidence as is required, or allow the parties a reasonable time to obtain and submit such evidence, before the termination of the hearing.

§ 725.457 Witnesses.

(a) Witnesses at the hearing shall testify under oath or affirmation. The administrative law judge and the parties may question witnesses with respect to any matters relevant and material to any contested issue. Any party who intends to present the testimony of an expert witness at a hearing, including any physician, regardless of whether the physician has previously prepared a medical report, shall so notify all other parties to the claim at least 10 days before the hearing. The failure to give notice of the appearance of an expert witness in accordance with this paragraph, unless notice is waived by all parties, shall preclude the presentation of testimony by such expert witness.

(b) No person shall be required to appear as a witness in any proceeding before an administrative law judge at a place more than 100 miles from his or her place of residence, unless the lawful mileage and witness fee for 1 day's attendance is paid in advance of the hearing date.

(c) No person shall be permitted to testify as a witness at the hearing, or pursuant to deposition or interrogatory under § 725.458, unless that person meets the requirements of § 725.414(c).

(1) In the case of a witness offering testimony relevant to the liability of the responsible operator, in the absence of extraordinary circumstances, the witness must have been identified as a potential hearing witness while the claim was pending before the district director.

(2) In the case of a physician offering testimony relevant to the physical condition of the miner, such physician must have prepared a medical report. Alternatively, in the absence of a showing of good cause under § 725.456(b)(1) of this part, a physician may offer testimony relevant to the physical condition of the miner only to the extent that the party offering the physician's testimony has submitted fewer medical reports than permitted by § 725.414. Such physician's opinion

shall be considered a medical report subject to the limitations of § 725.414.

(d) A physician whose testimony is permitted under this section may testify as to any other medical evidence of record, but shall not be permitted to testify as to any medical evidence relevant to the miner's condition that is not admissible.

§ 725.458 Depositions; interrogatories.

The testimony of any witness or party may be taken by deposition or interrogatory according to the rules of practice of the Federal district court for the judicial district in which the case is pending (or of the U.S. District Court for the District of Columbia if the case is pending in the District or outside the United States), except that at least 30 days prior notice of any deposition shall be given to all parties unless such notice is waived. No post-hearing deposition or interrogatory shall be permitted unless authorized by the administrative law judge upon the motion of a party to the claim. The testimony of any physician which is taken by deposition shall be subject to the limitations on the scope of the testimony contained in § 725.457(d).

§ 725.459 Witness fees.

(a) A witness testifying at a hearing before an administrative law judge, or whose deposition is taken, shall receive the same fees and mileage as witnesses in courts of the United States. If the witness is an expert, he or she shall be entitled to an expert witness fee. Except as provided in paragraphs (b) and (c) of this section, such fees shall be paid by the proponent of the witness.

(b) If the witness' proponent does not intend to call the witness to appear at a hearing or deposition, any other party may subpoena the witness for cross-examination. The administrative law judge (ALJ) shall authorize the least intrusive and expensive means of cross-examination as the ALJ deems appropriate and necessary to the full and true disclosure of the facts. If such witness is required to attend the hearing, give a deposition or respond to interrogatories for cross-examination purposes, the proponent of the witness shall pay the witness' fee. The fund shall remain liable for any costs associated with the cross-examination of the physician who performed the complete pulmonary evaluation pursuant to § 725.406.

(c) If a claimant is determined entitled to benefits, there may be assessed as costs against a responsible operator, if any, or the fund, fees and mileage for necessary witnesses attending the hearing at the request of the claimant. Both the necessity for the witness and the reasonableness of the fees of any expert witness shall be approved by the administrative law judge. The amounts awarded against a responsible operator or the fund as attorney's fees, or costs, fees and mileage for witnesses, shall not in any respect affect or diminish benefits payable under the Act.

[65 FR 80054, Dec. 20, 2000, as amended at 68 FR 69935, Dec. 15, 2003]

§ 725.460 Consolidated hearings.

When two or more hearings are to be held, and the same or substantially similar evidence is relevant and material to the matters at issue at each such hearing, the Chief Administrative Law Judge may, upon motion by any party or on his or her own motion, order that a consolidated hearing be conducted. Where consolidated hearings are held, a single record of the proceedings shall be made and the evidence introduced in one claim may be considered as introduced in the others, and a separate or joint decision shall be made, as appropriate.

§ 725.461 Waiver of right to appear and present evidence.

(a) If all parties waive their right to appear before the administrative law judge, it shall not be necessary for the administrative law judge to give notice of, or conduct, an oral hearing. A waiver of the right to appear shall be made in writing and filed with the Chief Administrative Law Judge or the administrative law judge assigned to hear the case. Such waiver may be withdrawn by a party for good cause shown at any time prior to the mailing of the decision in the claim. Even though all of the parties have filed a waiver of the right to appear, the administrative law judge may, nevertheless, after giving notice of the time and place, conduct a hearing if he or she believes that the

personal appearance and testimony of the party or parties would assist in ascertaining the facts in issue in the claim. Where a waiver has been filed by all parties, and they do not appear before the administrative law judge personally or by representative, the administrative law judge shall make a record of the relevant documentary evidence submitted in accordance with this part and any further written stipulations of the parties. Such documents and stipulations shall be considered the evidence of record in the case and the decision shall be based upon such evidence.

(b) Except as provided in § 725.456(a), the unexcused failure of any party to attend a hearing shall constitute a waiver of such party's right to present evidence at the hearing, and may result in a dismissal of the claim (see § 725.465).

§ 725.462 Withdrawal of controversion of issues set for formal hearing; effect.

A party may, on the record, withdraw his or her controversion of any or all issues set for hearing. If a party withdraws his or her controversion of all issues, the administrative law judge shall remand the case to the district director for the issuance of an appropriate order.

§ 725.463 Issues to be resolved at hearing; new issues.

(a) Except as otherwise provided in this section, the hearing shall be confined to those contested issues which have been identified by the district director (see § 725.421) or any other issue raised in writing before the district director.

(b) An administrative law judge may consider a new issue only if such issue was not reasonably ascertainable by the parties at the time the claim was before the district director. Such new issue may be raised upon application of any party, or upon an administrative law judge's own motion, with notice to all parties, at any time after a claim has been transmitted by the district director to the Office of Administrative Law Judges and prior to decision by an administrative law judge. If a new issue is raised, the administrative law judge may, in his or her discretion, either remand the case to the district director with instructions for further proceedings, hear and resolve the new issue, or refuse to consider such new issue.

(c) If a new issue is to be considered by the administrative law judge, a party may, upon request, be granted an appropriate continuance.

§ 725.464 Record of hearing.

All hearings shall be open to the public and shall be mechanically or stenographically reported. All evidence upon which the administrative law judge relies for decision shall be contained in the transcript of testimony, either directly or by appropriate reference. All medical reports, exhibits, and any other pertinent document or record, either in whole or in material part, introduced as evidence, shall be marked for identification and incorporated into the record.

§ 725.465 Dismissals for cause.

(a) The administrative law judge may, at the request of any party, or on his or her own motion, dismiss a claim:

(1) Upon the failure of the claimant or his or her representative to attend a hearing without good cause;

(2) Upon the failure of the claimant to comply with a lawful order of the administrative law judge; or

(3) Where there has been a prior final adjudication of the claim or defense to the claim under the provisions of this subchapter and no new evidence is submitted (except as provided in part 727 of this subchapter; see § 725.4(d)).

(b) A party who is not a proper party to the claim (see § 725.360) shall be dismissed by the administrative law judge. The administrative law judge shall not dismiss the operator designated as the responsible operator by the district director, except upon the motion or written agreement of the Director.

(c) In any case where a dismissal of a claim, defense, or party is sought, the administrative law judge shall issue an order to show cause why the dismissal should not be granted and afford all parties a reasonable time to respond to such order. After the time for response has expired, the administrative law

judge shall take such action as is appropriate to rule on the dismissal, which may include an order dismissing the claim, defense or party.

(d) No claim shall be dismissed in a case with respect to which payments prior to final adjudication have been made to the claimant in accordance with § 725.522, except upon the motion or written agreement of the Director.

§ 725.466 Order of dismissal.

(a) An order dismissing a claim shall be served on the parties in accordance with § 725.478. The dismissal of a claim shall have the same effect as a decision and order disposing of the claim on its merits, except as provided in paragraph (b) of this section. Such order shall advise the parties of their right to request review by the Benefits Review Board.

(b) Where the Chief Administrative Law Judge or the presiding administrative law judge issues a decision and order dismissing the claim after a show cause proceeding, the district director shall terminate any payments being made to the claimant under § 725.522, and the order of dismissal shall, if appropriate, order the claimant to reimburse the fund for all benefits paid to the claimant.

§ 725.475 Termination of hearings.

Hearings are officially terminated when all the evidence has been received, witnesses heard, pleadings and briefs submitted to the administrative law judge, and the transcript of the proceedings has been printed and delivered to the administrative law judge.

§ 725.476 Issuance of decision and order.

Within 20 days after the official termination of the hearing (see § 725.475), the administrative law judge shall issue a decision and order with respect to the claim making an award to the claimant, rejecting the claim, or taking such other action as is appropriate.

§ 725.477 Form and contents of decision and order.

(a) Orders adjudicating claims for benefits shall be designated by the term ''decision and order'' or ''supplemental decision and order'' as appropriate, followed by a descriptive phrase designating the particular type of order, such as ''award of benefits,'' ''rejection of claim,'' ''suspension of benefits,'' ''modification of award.''

(b) A decision and order shall contain a statement of the basis of the order, findings of fact, conclusions of law, and an award, rejection or other appropriate paragraph containing the action of the administrative law judge, his or her signature and the date of issuance. A decision and order shall be based upon the record made before the administrative law judge.

[65 FR 80054, Dec. 20, 2000, as amended at 72 FR 4205, Jan. 30, 2007]

§ 725.478 Filing and service of decision and order.

On the date of issuance of a decision and order under § 725.477, the administrative law judge shall serve the decision and order on all parties to the claim by certified mail. On the same date, the original record of the claim shall be sent to the DCMWC in Washington, D.C. Upon receipt by the DCMWC, the decision and order shall be considered to be filed in the office of the district director, and shall become effective on that date.

§ 725.479 Finality of decisions and orders.

(a) A decision and order shall become effective when filed in the office of the district director (see § 725.478), and unless proceedings for suspension or setting aside of such order are instituted within 30 days of such filing, the order shall become final at the expiration of the 30th day after such filing (see § 725.481).

(b) Any party may, within 30 days after the filing of a decision and order under § 725.478, request a reconsideration of such decision and order by the administrative law judge. The procedures to be followed in the reconsideration of a decision and order shall be determined by the administrative law judge.

(c) The time for appeal to the Benefits Review Board shall be suspended during the consideration of a request for reconsideration. After the administrative law judge has issued and filed a

denial of the request for reconsideration, or a revised decision and order in accordance with this part, any dissatisfied party shall have 30 days within which to institute proceedings to set aside the decision and order on reconsideration.

(d) Regardless of any defect in service, actual receipt of the decision is sufficient to commence the 30-day period for requesting reconsideration or appealing the decision.

§ 725.480 Modification of decisions and orders.

A party who is dissatisfied with a decision and order which has become final in accordance with § 725.479 may request a modification of the decision and order if the conditions set forth in § 725.310 are met.

§ 725.481 Right to appeal to the Benefits Review Board.

Any party dissatisfied with a decision and order issued by an administrative law judge may, before the decision and order becomes final (see § 725.479), appeal the decision and order to the Benefits Review Board. A notice of appeal shall be filed with the Board. Proceedings before the Board shall be conducted in accordance with part 802 of this title.

§ 725.482 Judicial review.

(a) Any person adversely affected or aggrieved by a final order of the Benefits Review Board may obtain a review of that order in the U.S. court of appeals for the circuit in which the injury occurred by filing in such court within 60 days following the issuance of such Board order a written petition praying that the order be modified or set aside. The payment of the amounts required by an award shall not be stayed pending final decision in any such proceeding unless ordered by the court. No stay shall be issued unless the court finds that irreparable injury would otherwise ensue to an operator or carrier.

(b) The Director, Office of Workers' Compensation Program, as designee of the Secretary of Labor responsible for the administration and enforcement of the Act, shall be considered the proper party to appear and present argument on behalf of the Secretary of Labor in all review proceedings conducted pursuant to this part and the Act, either as petitioner or respondent.

§ 725.483 Costs in proceedings brought without reasonable grounds.

If a United States court having jurisdiction of proceedings regarding any claim or final decision and order, determines that the proceedings have been instituted or continued before such court without reasonable ground, the costs of such proceedings shall be assessed against the party who has so instituted or continued such proceedings.

Subpart G—Responsible Coal Mine Operators

§ 725.490 Statutory provisions and scope.

(a) One of the major purposes of the black lung benefits amendments of 1977 was to provide a more effective means of transferring the responsibility for the payment of benefits from the Federal government to the coal industry with respect to claims filed under this part. In furtherance of this goal, a Black Lung Disability Trust Fund financed by the coal industry was established by the Black Lung Benefits Revenue Act of 1977. The primary purpose of the Fund is to pay benefits with respect to all claims in which the last coal mine employment of the miner on whose account the claim was filed occurred before January 1, 1970. With respect to most claims in which the miner's last coal mine employment occurred after January 1, 1970, individual coal mine operators will be liable for the payment of benefits. The 1981 amendments to the Act relieved individual coal mine operators from the liability for payment of certain special claims involving coal mine employment on or after January 1, 1970, where the claim was previously denied and subsequently approved under section 435 of the Act. See § 725.496 for a detailed description of these special claims. Where no such operator exists or the operator determined to be liable is in default in any case, the fund shall pay the benefits due and seek reimbursement as is appropriate. See also

§ 725.420 for the fund's role in the payment of interim benefits in certain contested cases. In addition, the Black Lung Benefits Reform Act of 1977 amended certain provisions affecting the scope of coverage under the Act and describing the effects of particular corporate transactions on the liability of operators.

(b) The provisions of this subpart define the term ''operator'' and prescribe the manner in which the identity of an operator which may be liable for the payment of benefits—referred to herein as a ''responsible operator''—will be determined.

§ 725.491 Operator defined.

(a) For purposes of this part, the term ''operator'' shall include:

(1) Any owner, lessee, or other person who operates, controls, or supervises a coal mine, or any independent contractor performing services or construction at such mine; or

(2) Any other person who:

(i) Employs an individual in the transportation of coal or in coal mine construction in or around a coal mine, to the extent such individual was exposed to coal mine dust as a result of such employment (see § 725.202);

(ii) In accordance with the provisions of § 725.492, may be considered a successor operator; or

(iii) Paid wages or a salary, or provided other benefits, to an individual in exchange for work as a miner (see § 725.202).

(b) The terms ''owner,'' ''lessee,'' and ''person'' shall include any individual, partnership, association, corporation, firm, subsidiary of a corporation, or other organization, as appropriate, except that an officer of a corporation shall not be considered an ''operator'' for purposes of this part. Following the issuance of an order awarding benefits against a corporation that has not secured its liability for benefits in accordance with section 423 of the Act and § 726.4, such order may be enforced against the president, secretary, or treasurer of the corporation in accordance with subpart I of this part.

(c) The term ''independent contractor'' shall include any person who contracts to perform services. Such contractor's status as an operator shall not be contingent upon the amount or percentage of its work or business related to activities in or around a mine, nor upon the number or percentage of its employees engaged in such activities.

(d) For the purposes of determining whether a person is or was an operator that may be found liable for the payment of benefits under this part, there shall be a rebuttable presumption that during the course of an individual's employment with such employer, such individual was regularly and continuously exposed to coal mine dust during the course of employment. The presumption may be rebutted by a showing that the employee was not exposed to coal mine dust for significant periods during such employment.

(e) The operation, control, or supervision referred to in paragraph (a)(1) of this section may be exercised directly or indirectly. Thus, for example, where a coal mine is leased, and the lease empowers the lessor to make decisions with respect to the terms and conditions under which coal is to be extracted or prepared, such as, but not limited to, the manner of extraction or preparation or the amount of coal to be produced, the lessor may be considered an operator. Similarly, any parent entity or other controlling business entity may be considered an operator for purposes of this part, regardless of the nature of its business activities.

(f) Neither the United States, nor any State, nor any instrumentality or agency of the United States or any State, shall be considered an operator.

§ 725.492 Successor operator defined.

(a) Any person who, on or after January 1, 1970, acquired a mine or mines, or substantially all of the assets thereof, from a prior operator, or acquired the coal mining business of such prior operator, or substantially all of the assets thereof, shall be considered a ''successor operator'' with respect to any miners previously employed by such prior operator.

(b) The following transactions shall also be deemed to create successor operator liability:

(1) If an operator ceases to exist by reason of a reorganization which involves a change in identity, form, or

place of business or organization, however effected;

(2) If an operator ceases to exist by reason of a liquidation into a parent or successor corporation; or

(3) If an operator ceases to exist by reason of a sale of substantially all its assets, or as a result of merger, consolidation, or division.

(c) In any case in which a transaction specified in paragraph (b), or substantially similar to a transaction specified in paragraph (b), took place, the resulting entity shall be considered a ''successor operator'' with respect to any miners previously employed by such prior operator.

(d) This section shall not be construed to relieve a prior operator of any liability if such prior operator meets the conditions set forth in § 725.494. If the prior operator does not meet the conditions set forth in § 725.494, the following provisions shall apply:

(1) In any case in which a prior operator transferred a mine or mines, or substantially all of the assets thereof, to a successor operator, or sold its coal mining business or substantially all of the assets thereof, to a successor operator, and then ceased to exist within the terms of paragraph (b), the successor operator as identified in paragraph (a) shall be primarily liable for the payment of benefits to any miners previously employed by such prior operator.

(2) In any case in which a prior operator transferred mines, or substantially all of the assets thereof, to more than one successor operator, the successor operator that most recently acquired a mine or mines or assets from the prior operator shall be primarily liable for the payment of benefits to any miners previously employed by such prior operator.

(3) In any case in which a mine or mines, or substantially all the assets thereof, have been transferred more than once, the successor operator that most recently acquired such mine or mines or assets shall be primarily liable for the payment of benefits to any miners previously employed by the original prior operator. If the most recent successor operator does not meet the criteria for a potentially liable operator set forth in § 725.494, the next most recent successor operator shall be liable.

(e) An ''acquisition,'' for purposes of this section, shall include any transaction by which title to the mine or mines, or substantially all of the assets thereof, or the right to extract or prepare coal at such mine or mines, becomes vested in a person other than the prior operator.

§ 725.493 Employment relationship defined.

(a)(1) In determining the identity of a responsible operator under this part, the terms ''employ'' and ''employment'' shall be construed as broadly as possible, and shall include any relationship under which an operator retains the right to direct, control, or supervise the work performed by a miner, or any other relationship under which an operator derives a benefit from the work performed by a miner. Any individuals who participate with one or more persons in the mining of coal, such as owners, proprietors, partners, and joint venturers, whether they are compensated by wages, salaries, piece rates, shares, profits, or by any other means, shall be deemed employees. It is the specific intention of this paragraph to disregard any financial arrangement or business entity devised by the actual owners or operators of a coal mine or coal mine-related enterprise to avoid the payment of benefits to miners who, based upon the economic reality of their relationship to this enterprise, are, in fact, employees of the enterprise.

(2) The payment of wages or salary shall be prima facie evidence of the right to direct, control, or supervise an individual's work. The Department intends that where the operator who paid a miner's wages or salary meets the criteria for a potentially liable operator set forth in § 725.494, that operator shall be primarily liable for the payment of any benefits due the miner as a result of such employment. The absence of such payment, however, will not negate the existence of an employment relationship. Thus, the Department also intends that where the person who paid a miner's wages may not

be considered a potentially liable operator, any other operator who retained the right to direct, control or supervise the work performed by the miner, or who benefitted from such work, may be considered a potentially liable operator.

(b) This paragraph contains examples of relationships that shall be considered employment relationships for purposes of this part. The list is not intended to be exclusive.

(1) In any case in which an operator may be considered a successor operator, as determined in accordance with § 725.492, any employment with a prior operator shall also be deemed to be employment with the successor operator. In a case in which the miner was not independently employed by the successor operator, the prior operator shall remain primarily liable for the payment of any benefits based on the miner's employment with the prior operator. In a case in which the miner was independently employed by the successor operator after the transaction giving rise to successor operator liability, the successor operator shall be primarily liable for the payment of any benefits.

(2) In any case in which the operator which directed, controlled or supervised the miner is no longer in business and such operator was a subsidiary of a parent company, a member of a joint venture, a partner in a partnership, or was substantially owned or controlled by another business entity, such parent entity or other member of a joint venture or partner or controlling business entity may be considered the employer of any employees of such operator.

(3) In any claim in which the operator which directed, controlled or supervised the miner is a lessee, the lessee shall be considered primarily liable for the claim. The liability of the lessor may be established only after it has been determined that the lessee is unable to provide for the payment of benefits to a successful claimant. In any case involving the liability of a lessor for a claim arising out of employment with a lessee, any determination of lessor liability shall be made on the basis of the facts present in the case in accordance with the following considerations:

(i) Where a coal mine is leased, and the lease empowers the lessor to make decisions with respect to the terms and conditions under which coal is to be extracted or prepared, such as, but not limited to, the manner of extraction or preparation or the amount of coal to be produced, the lessor shall be considered the employer of any employees of the lessee.

(ii) Where a coal mine is leased to a self-employed operator, the lessor shall be considered the employer of such self-employed operator and its employees if the lease or agreement is executed or renewed after August 18, 1978 and such lease or agreement does not require the lessee to guarantee the payment of benefits which may be required under this part and part 726 of this subchapter.

(iii) Where a lessor previously operated a coal mine, it may be considered an operator with respect to employees of any lessee of such mine, particularly where the leasing arrangement was executed or renewed after August 18, 1978 and does not require the lessee to secure benefits provided by the Act.

(4) A self-employed operator, depending upon the facts of the case, may be considered an employee of any other operator, person, or business entity which substantially controls, supervises, or is financially responsible for the activities of the self-employed operator.

§ 725.494 Potentially liable operators.

An operator may be considered a ''potentially liable operator'' with respect to a claim for benefits under this part if each of the following conditions is met:

(a) The miner's disability or death arose at least in part out of employment in or around a mine or other facility during a period when the mine or facility was operated by such operator, or by a person with respect to which the operator may be considered a successor operator. For purposes of this section, there shall be a rebuttable presumption that the miner's disability or death arose in whole or in part out of his or her employment with such operator. Unless this presumption is rebutted, the responsible operator shall be liable to pay benefits to the claimant

on account of the disability or death of the miner in accordance with this part. A miner's pneumoconiosis, or disability or death therefrom, shall be considered to have arisen in whole or in part out of work in or around a mine if such work caused, contributed to or aggravated the progression or advancement of a miner's loss of ability to perform his or her regular coal mine employment or comparable employment.

(b) The operator, or any person with respect to which the operator may be considered a successor operator, was an operator for any period after June 30, 1973.

(c) The miner was employed by the operator, or any person with respect to which the operator may be considered a successor operator, for a cumulative period of not less than one year (§ 725.101(a)(32)).

(d) The miner's employment with the operator, or any person with respect to which the operator may be considered a successor operator, included at least one working day (§ 725.101(a)(32)) after December 31, 1969.

(e) The operator is capable of assuming its liability for the payment of continuing benefits under this part. An operator will be deemed capable of assuming its liability for a claim if one of the following three conditions is met:

(1) The operator obtained a policy or contract of insurance under section 423 of the Act and part 726 of this subchapter that covers the claim, except that such policy shall not be considered sufficient to establish the operator's capability of assuming liability if the insurance company has been declared insolvent and its obligations for the claim are not otherwise guaranteed;

(2) The operator qualified as a self-insurer under section 423 of the Act and part 726 of this subchapter during the period in which the miner was last employed by the operator, provided that the operator still qualifies as a self-insurer or the security given by the operator pursuant to § 726.104(b) is sufficient to secure the payment of benefits in the event the claim is awarded; or

(3) The operator possesses sufficient assets to secure the payment of benefits in the event the claim is awarded in accordance with § 725.606.

§ 725.495 Criteria for determining a responsible operator.

(a)(1) The operator responsible for the payment of benefits in a claim adjudicated under this part (the ''responsible operator'') shall be the potentially liable operator, as determined in accordance with § 725.494, that most recently employed the miner.

(2) If more than one potentially liable operator may be deemed to have employed the miner most recently, then the liability for any benefits payable as a result of such employment shall be assigned as follows:

(i) First, to the potentially liable operator that directed, controlled, or supervised the miner;

(ii) Second, to any potentially liable operator that may be considered a successor operator with respect to miners employed by the operator identified in paragraph (a)(2)(i) of this section; and

(iii) Third, to any other potentially liable operator which may be deemed to have been the miner's most recent employer pursuant to § 725.493.

(3) If the operator that most recently employed the miner may not be considered a potentially liable operator, as determined in accordance with § 725.494, the responsible operator shall be the potentially liable operator that next most recently employed the miner. Any potentially liable operator that employed the miner for at least one day after December 31, 1969 may be deemed the responsible operator if no more recent employer may be considered a potentially liable operator.

(4) If the miner's most recent employment by an operator ended while the operator was authorized to self-insure its liability under part 726 of this title, and that operator no longer possesses sufficient assets to secure the payment of benefits, the provisions of paragraph (a)(3) shall be inapplicable with respect to any operator that employed the miner only before he was employed by such self-insured operator. If no operator that employed the miner after his employment with the self-insured operator meets the conditions of § 725.494, the claim of the miner

or his survivor shall be the responsibility of the Black Lung Disability Trust Fund.

(b) Except as provided in this section and § 725.408(a)(3), with respect to the adjudication of the identity of a responsible operator, the Director shall bear the burden of proving that the responsible operator initially found liable for the payment of benefits pursuant to § 725.410 (the ''designated responsible operator'') is a potentially liable operator. It shall be presumed, in the absence of evidence to the contrary, that the designated responsible operator is capable of assuming liability for the payment of benefits in accordance with § 725.494(e).

(c) The designated responsible operator shall bear the burden of proving either:

(1) That it does not possess sufficient assets to secure the payment of benefits in accordance with § 725.606; or

(2) That it is not the potentially liable operator that most recently employed the miner. Such proof must include evidence that the miner was employed as a miner after he or she stopped working for the designated responsible operator and that the person by whom he or she was employed is a potentially liable operator within the meaning of § 725.494. In order to establish that a more recent employer is a potentially liable operator, the designated responsible operator must demonstrate that the more recent employer possesses sufficient assets to secure the payment of benefits in accordance with § 725.606. The designated responsible operator may satisfy its burden by presenting evidence that the owner, if the more recent employer is a sole proprietorship; the partners, if the more recent employer is a partnership; or the president, secretary, and treasurer, if the more recent employer is a corporation that failed to secure the payment of benefits pursuant to part 726 of this subchapter, possess assets sufficient to secure the payment of benefits, provided such assets may be reached in a proceeding brought under subpart I of this part.

(d) In any case referred to the Office of Administrative Law Judges pursuant to § 725.421 in which the operator finally designated as responsible pursuant to § 725.418(d) is not the operator that most recently employed the miner, the record shall contain a statement from the district director explaining the reasons for such designation. If the reasons include the most recent employer's failure to meet the conditions of § 725.494(e), the record shall also contain a statement that the Office has searched the files it maintains pursuant to part 726, and that the Office has no record of insurance coverage for that employer, or of authorization to self-insure, that meets the conditions of § 725.494(e)(1) or (e)(2). Such a statement shall be prima facie evidence that the most recent employer is not financially capable of assuming its liability for a claim. In the absence of such a statement, it shall be presumed that the most recent employer is financially capable of assuming its liability for a claim.

§ 725.496 Special claims transferred to the fund.

(a) The 1981 amendments to the Act amended section 422 of the Act and transferred liability for payment of certain special claims from operators and carriers to the fund. These provisions apply to claims which were denied before March 1, 1978, and which have been or will be approved in accordance with section 435 of the Act.

(b) Section 402(i) of the Act defines three classes of denied claims subject to the transfer provisions:

(1) Claims filed with and denied by the Social Security Administration before March 1, 1978;

(2) Claims filed with the Department of Labor in which the claimant was notified by the Department of an administrative or informal denial before March 1, 1977, and in which the claimant did not within one year of such notification either:

(i) Request a hearing; or

(ii) Present additional evidence; or

(iii) Indicate an intention to present additional evidence; or

(iv) Request a modification or reconsideration of the denial on the ground of a change in conditions or because of a mistake in a determination of fact;

(3) Claims filed with the Department of Labor and denied under the law in effect prior to the enactment of the

Black Lung Benefits Reform Act of 1977, that is, before March 1, 1978, following a formal hearing before an administrative law judge or administrative review before the Benefits Review Board or review before a United States Court of Appeals.

(c) Where more than one claim was filed with the Social Security Administration and/or the Department of Labor prior to March 1, 1978, by or on behalf of a miner or a surviving dependent of a miner, unless such claims were required to be merged by the agency's regulations, the procedural history of each such claim must be considered separately to determine whether the claim is subject to the transfer of liability provisions.

(d) For a claim filed with and denied by the Social Security Administration prior to March 1, 1978, to come within the transfer provisions, such claim must have been or must be approved under the provisions of section 435 of the Act. No claim filed with and denied by the Social Security Administration is subject to the transfer of liability provisions unless a request was made by or on behalf of the claimant for review of such denied claim under section 435. Such review must have been requested by the filing of a valid election card or other equivalent document with the Social Security Administration in accordance with section 435(a) and its implementing regulations at 20 CFR 410.700 through 410.707.

(e) Where a claim filed with the Department of Labor prior to March 1, 1977, was subjected to repeated administrative or informal denials, the last such denial issued during the pendency of the claim determines whether the claim is subject to the transfer of liability provisions.

(f) Where a miner's claim comes within the transfer of liability provisions of the 1981 amendments the fund is also liable for the payment of any benefits to which the miner's dependent survivors are entitled after the miner's death. However, if the survivor's entitlement was established on a separate claim not subject to the transfer of liability provisions prior to approval of the miner's claim under section 435, the party responsible for the payment of such survivors' benefits shall not be relieved of that responsibility because the miner's claim was ultimately approved and found subject to the transfer of liability provisions.

§ 725.497 Procedures in special claims transferred to the fund.

(a) *General*. It is the purpose of this section to define procedures to expedite the handling and disposition of claims affected by the benefit liability transfer provisions of Section 205 of the Black Lung Benefits Amendments of 1981.

(b) *Action by the Department*. The OWCP shall, in accordance with the criteria contained in § 725.496, review each claim which is or may be affected by the provisions of Section 205 of the Black Lung Benefits Amendments of 1981. Any party to a claim, adjudication officer, or adjudicative body may request that such a review be conducted and that the record be supplemented with any additional documentation necessary for an informed consideration of the transferability of the claim. Where the issue of the transferability of the claim can not be resolved by agreement of the parties and the evidence of record is not sufficient for a resolution of the issue, the hearing record may be reopened or the case remanded for the development of the additional evidence concerning the procedural history of the claim necessary to such resolution. Such determinations shall be made on an expedited basis.

(c) *Dismissal of operators*. If it is determined that a coal mine operator or insurance carrier which previously participated in the consideration or adjudication of any claim, may no longer be found liable for the payment of benefits to the claimant by reason of section 205 of the Black Lung Benefits Amendments of 1981, such operator or carrier shall be promptly dismissed as a party to the claim. The dismissal of an operator or carrier shall be concluded at the earliest possible time and in no event shall an operator or carrier participate as a necessary party in any claim for which only the fund may be liable.

(d) *Procedure following dismissal of an operator*. After it has been determined

that an operator or carrier must be dismissed as a party in any claim in accordance with this section, the Director shall take such action as is authorized by the Act to bring about the proper and expeditious resolution of the claim in light of all relevant medical and other evidence. Action to be taken in this regard by the Director may include, but is not limited to, the assignment of the claim to the Black Lung Disability Trust Fund for the payment of benefits, the reimbursement of benefits previously paid by an operator or carrier if appropriate, the defense of the claim on behalf of the fund, or proceedings authorized by § 725.310.

(e) Any claimant whose claim has been subsequently denied in a modification proceeding will be entitled to expedited review of the modification decision. Where a formal hearing was previously held, the claimant may waive his right to a further hearing and ask that a decision be made on the record of the prior hearing, as supplemented by any additional documentary evidence which the parties wish to introduce and briefs of the parties, if desired. In any case in which the claimant waives his right to a second hearing, a decision and order must be issued within 30 days of the date upon which the parties agree the record has been completed.

Subpart H—Payment of Benefits

GENERAL PROVISIONS

§ 725.501 Payment provisions generally.

The provisions of this subpart govern the payment of benefits to claimants whose claims are approved for payment under section 415 and part C of title IV of the Act or approved after review under section 435 of the Act and part 727 of this subchapter (see § 725.4(d)).

§ 725.502 When benefit payments are due; manner of payment.

(a)(1) Except with respect to benefits paid by the fund pursuant to an initial determination issued in accordance with § 725.418 (see § 725.522), benefits under the Act shall be paid when they become due. Benefits shall be considered due after the issuance of an effective order requiring the payment of benefits by a district director, administrative law judge, Benefits Review Board, or court, notwithstanding the pendency of a motion for reconsideration before an administrative law judge or an appeal to the Board or court, except that benefits shall not be considered due where the payment of such benefits has been stayed by the Benefits Review Board or appropriate court. An effective order shall remain in effect unless it is vacated by an administrative law judge on reconsideration, or, upon review under section 21 of the LHWCA, by the Benefits Review Board or an appropriate court, or is superseded by an effective order issued pursuant to § 725.310.

(2) A proposed order issued by a district director pursuant to § 725.418 becomes effective at the expiration of the thirtieth day thereafter if no party timely requests revision of the proposed decision and order or a hearing (see § 725.419). An order issued by an administrative law judge becomes effective when it is filed in the office of the district director (see § 725.479). An order issued by the Benefits Review Board shall become effective when it is issued. An order issued by a court shall become effective in accordance with the rules of the court.

(b)(1) While an effective order requiring the payment of benefits remains in effect, monthly benefits, at the rates set forth in § 725.520, shall be due on the fifteenth day of the month following the month for which the benefits are payable. For example, benefits payable for the month of January shall be due on the fifteenth day of February.

(2) Within 30 days after the issuance of an effective order requiring the payment of benefits, the district director shall compute the amount of benefits payable for periods prior to the effective date of the order, in addition to any interest payable for such periods (see § 725.608), and shall so notify the parties. Any computation made by the district director under this paragraph shall strictly observe the terms of the order. Benefits and interest payable for such periods shall be due on the thirtieth day following issuance of the district director's computation. A copy of

the current table of applicable interest rates shall be attached to the computation.

(c) Benefits are payable for monthly periods and shall be paid directly to an eligible claimant or his or her representative payee (see § 725.510) beginning with the month during which eligibility begins. Benefit payments shall terminate with the month before the month during which eligibility terminates. If a claimant dies in the first month during which all requirements for eligibility are met, benefits shall be paid for that month.

§ 725.503 Date from which benefits are payable.

(a) In accordance with the provisions of section 6(a) of the Longshore Act as incorporated by section 422(a) of the Act, and except as provided in § 725.504, the provisions of this section shall be applicable in determining the date from which benefits are payable to an eligible claimant for any claim filed after March 31, 1980. Except as provided in paragraph (d) of this section, the date from which benefits are payable for any claim approved under part 727 shall be determined in accordance with § 727.302 (see § 725.4(d)).

(b) *Miner's claim.* Benefits are payable to a miner who is entitled beginning with the month of onset of total disability due to pneumoconiosis arising out of coal mine employment. Where the evidence does not establish the month of onset, benefits shall be payable to such miner beginning with the month during which the claim was filed. In the case of a miner who filed a claim before January 1, 1982, benefits shall be payable to the miner's eligible survivor (if any) beginning with the month in which the miner died.

(c) *Survivor's claim.* Benefits are payable to a survivor who is entitled beginning with the month of the miner's death, or January 1, 1974, whichever is later.

(d) If a claim is awarded pursuant to section 22 of the Longshore Act and § 725.310, then the date from which benefits are payable shall be determined as follows:

(1) *Mistake in fact.* The provisions of paragraphs (b) or (c) of this section, as applicable, shall govern the determination of the date from which benefits are payable.

(2) *Change in conditions.* Benefits are payable to a miner beginning with the month of onset of total disability due to pneumoconiosis arising out of coal mine employment, provided that no benefits shall be payable for any month prior to the effective date of the most recent denial of the claim by a district director or administrative law judge. Where the evidence does not establish the month of onset, benefits shall be payable to such miner from the month in which the claimant requested modification.

(e) In the case of a claim filed between July 1, 1973, and December 31, 1973, benefits shall be payable as provided by this section, except to the extent prohibited by § 727.303 (see § 725.4(d)).

(f) No benefits shall be payable with respect to a claim filed after December 31, 1973 (a part C claim), for any period of eligibility occurring before January 1, 1974.

(g) Each decision and order awarding benefits shall indicate the month from which benefits are payable to the eligible claimant.

§ 725.504 Payments to a claimant employed as a miner.

(a) In the case of a claimant who is employed as a miner (see § 725.202) at the time of a final determination of such miner's eligibility for benefits, no benefits shall be payable unless:

(1) The miner's eligibility is established under section 411(c)(3) of the Act; or

(2) the miner terminates his or her coal mine employment within 1 year from the date of the final determination of the claim.

(b) If the eligibility of a working miner is established under section 411(c)(3) of the Act, benefits shall be payable as is otherwise provided in this part. If eligibility cannot be established under section 411(c)(3), and the miner continues to be employed as a miner in any capacity for a period of less than 1 year after a final determination of the claim, benefits shall be payable beginning with the month during which the miner ends his or her coal mine employment. If the miner's

employment continues for more than 1 year after a final determination of eligibility, such determination shall be considered a denial of benefits on the basis of the miner's continued employment, and the miner may seek benefits only as provided in § 725.310, if applicable, or by filing a new claim under this part. The provisions of Subparts E and F of this part shall be applicable to claims considered under this section as is appropriate.

(c) In any case where the miner returns to coal mine or comparable and gainful work, the payments to such miner shall be suspended and no benefits shall be payable (except as provided in section 411(c)(3) of the Act) for the period during which the miner continues to work. If the miner again terminates employment, the district director may require the miner to submit to further medical examination before authorizing the payment of benefits.

§ 725.505 Payees.

Benefits may be paid, as appropriate, to a beneficiary, to a qualified dependent, or to a representative authorized under this subpart to receive payments on behalf of such beneficiary or dependent.

§ 725.506 Payment on behalf of another; "legal guardian" defined.

Benefits are paid only to the beneficiary, his or her representative payee (see § 725.510) or his or her legal guardian. As used in this section, ''legal guardian'' means an individual who has been appointed by a court of competent jurisdiction or otherwise appointed pursuant to law to assume control of and responsibility for the care of the beneficiary, the management of his or her estate, or both.

§ 725.507 Guardian for minor or incompetent.

An adjudication officer may require that a legal guardian or representative be appointed to receive benefit payments payable to any person who is mentally incompetent or a minor and to exercise the powers granted to, or to perform the duties otherwise required of such person under the Act.

§ 725.510 Representative payee.

(a) If the district director determines that the best interests of a beneficiary are served thereby, the district director may certify the payment of such beneficiary's benefits to a representative payee.

(b) Before any amount shall be certified for payment to any representative payee for or on behalf of a beneficiary, such representative payee shall submit to the district director such evidence as may be required of his or her relationship to, or his or her responsibility for the care of, the beneficiary on whose behalf payment is to be made, or of his or her authority to receive such a payment. The district director may, at any time thereafter, require evidence of the continued existence of such relationship, responsibility, or authority. If a person requesting representative payee status fails to submit the required evidence within a reasonable period of time after it is requested, no further payments shall be certified to him or her on behalf of the beneficiary unless the required evidence is thereafter submitted.

(c) All benefit payments made to a representative payee shall be available only for the use and benefit of the beneficiary, as defined in § 725.511.

§ 725.511 Use and benefit defined.

(a) Payments certified to a representative payee shall be considered as having been applied for the use and benefit of the beneficiary when they are used for the beneficiary's current maintenance—*i.e.*, to replace current income lost because of the disability of the beneficiary. Where a beneficiary is receiving care in an institution, current maintenance shall include the customary charges made by the institution and charges made for the current and foreseeable needs of the beneficiary which are not met by the institution.

(b) Payments certified to a representative payee which are not needed for the current maintenance of the beneficiary, except as they may be used under § 725.512, shall be conserved or invested on the beneficiary's behalf. Preferred investments are U.S. savings

bonds which shall be purchased in accordance with applicable regulations of the U.S. Treasury Department (31 CFR part 315). Surplus funds may also be invested in accordance with the rules applicable to investment of trust estates by trustees. For example, surplus funds may be deposited in an interest or dividend bearing account in a bank or trust company or in a savings and loan association if the account is either federally insured or is otherwise insured in accordance with State law requirements. Surplus funds deposited in an interest or dividend bearing account in a bank or trust company or in a savings and loan association must be in a form of account which clearly shows that the representative payee has only a fiduciary, and not a personal, interest in the funds. The preferred forms of such accounts are as follows:

Name of beneficiary _____
by (Name of representative payee) representative payee,
or (Name of beneficiary)
by (Name of representative payee) trustee,

U.S. savings bonds purchased with surplus funds by a representative payee for an incapacitated adult beneficiary should be registered as follows: (Name of beneficiary) (Social Security No.), for whom (Name of payee) is representative payee for black lung benefits.

§ 725.512 Support of legally dependent spouse, child, or parent.

If current maintenance needs of a beneficiary are being reasonably met, a relative or other person to whom payments are certified as representative payee on behalf of the beneficiary may use part of the payments so certified for the support of the legally dependent spouse, a legally dependent child, or a legally dependent parent of the beneficiary.

§ 725.513 Accountability; transfer.

(a) The district director may require a representative payee to submit periodic reports including a full accounting of the use of all benefit payments certified to a representative payee. If a requested report or accounting is not submitted within the time allowed, the district director shall terminate the certification of the representative payee and thereafter payments shall be made directly to the beneficiary. A certification which is terminated under this section may be reinstated for good cause, provided that all required reports are supplied to the district director.

(b) A representative payee who has conserved or invested funds from payments under this part shall, upon the direction of the district director, transfer any such funds (including interest) to a successor payee appointed by the district director or, at the option of the district director, shall transfer such funds to the Office for recertification to a successor payee or the beneficiary.

§ 725.514 Certification to dependent of augmentation portion of benefit.

(a) If the basic benefit of a miner or of a surviving spouse is augmented because of one or more dependents, and it appears to the district director that the best interests of such dependent would be served thereby, or that the augmented benefit is not being used for the use and benefit (as defined in this subpart) of the augmentee, the district director may certify payment of the amount of such augmentation (to the extent attributable to such dependent) to such dependent directly, or to a legal guardian or a representative payee for the use and benefit of such dependent.

(b) Any request to the district director to certify separate payment of the amount of an augmentation in accordance with paragraph (a) of this section shall be in writing on such form and in accordance with such instructions as are prescribed by the Office.

(c) The district director shall specify the terms and conditions of any certification authorized under this section and may terminate any such certification where appropriate.

(d) Any payment made under this section, if otherwise valid under the Act, is a complete settlement and satisfaction of all claims, rights, and interests in and to such payment, except that such payment shall not be construed to abridge the rights of any party to recoup any overpayment made.

§ 725.515 Assignment and exemption from claims of creditors.

(a) Except as provided by the Act and this part, no assignment, release, or commutation of benefits due or payable under this part by a responsible operator shall be valid, and all benefits shall be exempt from claims of creditors and from levy, execution, and attachment or other remedy or recovery or collection of a debt, which exemption may not be waived.

(b) Notwithstanding any other provision of law, benefits due from, or payable by, the Black Lung Disability Trust Fund under the Act and this part to a claimant shall be subject to legal process brought for the enforcement against the claimant of his or her legal obligations to provide child support or make alimony payments to the same extent as if the fund was a private person.

BENEFIT RATES

§ 725.520 Computation of benefits.

(a) *Basic rate*. The amount of benefits payable to a beneficiary for a month is determined, in the first instance, by computing the ''basic rate.'' The basic rate is equal to 37½ percent of the monthly pay rate for Federal employees in GS–2, step 1. That rate for a month is determined by:

(1) Ascertaining the lowest annual rate of pay (step 1) for Grade GS–2 of the General Schedule applicable to such month (see 5 U.S.C. 5332);

(2) Ascertaining the monthly rate thereof by dividing the amount determined in paragraph (a)(1) of this section by 12; and

(3) Ascertaining the basic rate under the Act by multiplying the amount determined in paragraph (a)(2) of this section by 0.375 (that is, by 37½ percent).

(b) *Basic benefit*. When a miner or surviving spouse is entitled to benefits for a month for which he or she has no dependents who qualify under this part and when a surviving child of a miner or spouse, or a parent, brother, or sister of a miner, is entitled to benefits for a month for which he or she is the only beneficiary entitled to benefits, the amount of benefits to which such beneficiary is entitled is equal to the basic rate as computed in accordance with this section (raised, if not a multiple of 10 cents, to the next high multiple of 10 cents). This amount is referred to as the ''basic benefit.''

(c) *Augmented benefit*. (1) When a miner or surviving spouse is entitled to benefits for a month for which he or she has one or more dependents who qualify under this part, the amount of benefits to which such miner or surviving spouse is entitled is increased. This increase is referred to as an ''augmentation.''

(2) The benefits of a miner or surviving spouse are augmented to take account of a particular dependent beginning with the first month in which such dependent satisfies the conditions set forth in this part, and continues to be augmented through the month before the month in which such dependent ceases to satisfy the conditions set forth in this part, except in the case of a child who qualifies as a dependent because he or she is a student. In the latter case, such benefits continue to be augmented through the month before the first month during no part of which he or she qualifies as a student.

(3) The basic rate is augmented by 50 percent for one such dependent, 75 percent for two such dependents, and 100 percent for three or more such dependents.

(d) *Survivor benefits*. As used in this section, ''survivor'' means a surviving child of a miner or surviving spouse, or a surviving parent, brother, or sister of a miner, who establishes entitlement to benefits under this part.

(e) *Computation and rounding*. (1) Any computation prescribed by this section is made to the third decimal place.

(2) Monthly benefits are payable in multiples of 10 cents. Therefore, a monthly payment of amounts derived under paragraph (c)(3) of this section which is not a multiple of 10 cents is increased to the next higher multiple of 10 cents.

(3) Since a fraction of a cent is not a multiple of 10 cents, such an amount which contains a fraction in the third decimal place is raised to the next higher multiple of 10 cents.

(f) *Eligibility based on the coal mine employment of more than one miner*. Where an individual, for any month, is entitled (and/or qualifies as a dependent for

purposes of augmentation of benefits) based on the disability or death due to pneumoconiosis arising out of the coal mine employment of more than one miner, the benefit payable to or on behalf of such individual shall be at a rate equal to the highest rate of benefits for which entitlement is established by reason of eligibility as a beneficiary, or by reason of his or her qualification as a dependent for augmentation of benefit purposes.

§ 725.521 Commutation of payments; lump sum awards.

(a) Whenever the district director determines that it is in the interest of justice, the liability for benefits or any part thereof as determined by a final adjudication, may, with the approval of the Director, be discharged by the payment of a lump sum equal to the present value of future benefit payments commuted, computed at 4 percent true discount compounded annually.

(b) Applications for commutation of future payments of benefits shall be made to the district director in the manner prescribed by the district director. If the district director determines that an award of a lump sum payment of such benefits would be in the interest of justice, he or she shall refer such application, together with the reasons in support of such determination, to the Director for consideration.

(c) The Director shall, in his or her discretion, grant or deny the application for commutation of payments. Such decision may be appealed to the Benefits Review Board.

(d) The computation of all commutations of such benefits shall be made by the OWCP. For this purpose the file shall contain the date of birth of the person on whose behalf commutation is sought, as well as the date upon which such commutation shall be effective.

(e) For purposes of determining the amount of any lump sum award, the probability of the death of the disabled miner and/or other persons entitled to benefits before the expiration of the period during which he or she is entitled to benefits, shall be determined in accordance with the most current United States Life Tables, as developed by the Department of Health, Education, and Welfare, and the probability of the remarriage of a surviving spouse shall be determined in accordance with the remarriage tables of the Dutch Royal Insurance Institution. The probability of the happening of any other contingency affecting the amount or duration of the compensation shall be disregarded.

(f) In the event that an operator or carrier is adjudicated liable for the payment of benefits, such operator or carrier shall be notified of and given an opportunity to participate in the proceedings to determine whether a lump sum award shall be made. Such operator or carrier shall, in the event a lump sum award is made, tender full and prompt payment of such award to the claimant as though such award were a final payment of monthly benefits. Except as provided in paragraph (g) of this section, such lump sum award shall forever discharge such operator or carrier from its responsibility to make monthly benefit payments under the Act to the person who has requested such lump-sum award. In the event that an operator or carrier is adjudicated liable for the payment of benefits, such operator or carrier shall not be liable for any portion of a commuted or lump sum award predicated upon benefits due any claimant prior to January 1, 1974.

(g) In the event a lump-sum award is approved under this section, such award shall not operate to discharge an operator carrier, or the fund from any responsibility imposed by the Act for the payment of medical benefits to an eligible miner.

§ 725.522 Payments prior to final adjudication.

(a) If an operator or carrier fails or refuses to commence the payment of benefits within 30 days of issuance of an initial determination of eligibility by the district director (see § 725.420), or fails or refuses to commence the payment of any benefits due pursuant to an effective order by a district director, administrative law judge, Benefits Review Board, or court, the fund shall commence the payment of such benefits and shall continue such payments

as appropriate. In the event that the fund undertakes the payment of benefits on behalf of an operator or carrier, the provisions of §§ 725.601 through 725.609 shall be applicable to such operator or carrier.

(b) If benefit payments are commenced prior to the final adjudication of the claim and it is later determined by an administrative law judge, the Board, or court that the claimant was ineligible to receive such payments, such payments shall be considered overpayments pursuant to § 725.540 and may be recovered in accordance with the provisions of this subpart.

SPECIAL PROVISIONS FOR OPERATOR PAYMENTS

§ 725.530 Operator payments; generally.

(a) Benefits payable by an operator or carrier pursuant to an effective order issued by a district director, administrative law judge, Benefits Review Board, or court, or by an operator that has agreed that it is liable for the payment of benefits to a claimant, shall be paid by the operator or carrier immediately when they become due (see § 725.502(b)). An operator that fails to pay any benefits that are due, with interest, shall be considered in default with respect to those benefits, and the provisions of § 725.605 of this part shall be applicable. In addition, a claimant who does not receive any benefits within 10 days of the date they become due is entitled to additional compensation equal to twenty percent of those benefits (see § 725.607). Arrangements for the payment of medical costs shall be made by such operator or carrier in accordance with the provisions of subpart J of this part.

(b) Benefit payments made by an operator or carrier shall be made directly to the person entitled thereto or a representative payee if authorized by the district director. The payment of a claimant's attorney's fee, if any is awarded, shall be made directly to such attorney. Reimbursement of the fund, including interest, shall be paid directly to the Secretary on behalf of the fund.

§ 725.531 Receipt for payment.

Any individual receiving benefits under the Act in his or her own right, or as a representative payee, or as the duly appointed agent for the estate of a deceased beneficiary, shall execute receipts for benefits paid by any operator which shall be produced by such operator for inspection whenever the district director requires. A canceled check shall be considered adequate receipt of payment for purposes of this section. No operator or carrier shall be required to retain receipts for payments made for more than 5 years after the date on which such receipt was executed.

§ 725.532 Suspension, reduction, or termination of payments.

(a) No suspension, reduction, or termination in the payment of benefits is permitted unless authorized by the district director, administrative law judge, Board, or court. No suspension, reduction, or termination shall be authorized except upon the occurrence of an event which terminates a claimant's eligibility for benefits (see subpart B of this part) or as is otherwise provided in subpart C of this part, §§ 725.306 and 725.310, or this subpart (see also §§ 725.533 through 725.546).

(b) Any unauthorized suspension in the payment of benefits by an operator or carrier shall be treated as provided in subpart I.

(c) Unless suspension, reduction, or termination of benefits payments is required by an administrative law judge, the Benefits Review Board or a court, the district director, after receiving notification of the occurrence of an event that would require the suspension, reduction, or termination of benefits, shall follow the procedures for the determination of claims set forth in subparts E and F.

INCREASES AND REDUCTIONS OF BENEFITS

§ 725.533 Modification of benefits amounts; general.

(a) Under certain circumstances, the amount of monthly benefits as computed in § 725.520 or lump-sum award (§ 725.521) shall be modified to determine the amount actually to be paid to

a beneficiary. With respect to any benefits payable for all periods of eligibility after January 1, 1974, a reduction of the amount of benefits payable shall be required on account of:

(1) Any compensation or benefits received under any State workers' compensation law because of death or partial or total disability due to pneumoconiosis; or

(2) Any compensation or benefits received under or pursuant to any Federal law including part B of title IV of the Act because of death or partial or total disability due to pneumoconiosis; or

(3) In the case of benefits to a parent, brother, or sister as a result of a claim filed at any time or benefits payable on a miner's claim which was filed on or after January 1, 1982, the excess earnings from wages and from net earnings from self-employment (see § 410.530 of this title) of such parent, brother, sister, or miner, respectively; or

(4) The fact that a claim for benefits from an additional beneficiary is filed, or that such claim is effective for a payment during the month of filing, or a dependent qualifies under this part for an augmentation portion of a benefit of a miner or widow for a period in which another dependent has previously qualified for an augmentation.

(b) An adjustment in a beneficiary's monthly benefit may be required because an overpayment or underpayment has been made to such beneficiary (see §§ 725.540–725.546).

(c) A suspension of a beneficiary's monthly benefits may be required when the Office has information indicating that reductions on account of excess earnings may reasonably be expected.

(d) Monthly benefit rates are payable in multiples of 10 cents. Any monthly benefit rate which, after the applicable computations, augmentations, and reductions is not a multiple of 10 cents, is increased to the next higher multiple of 10 cents. Since a fraction of a cent is not a multiple of 10 cents, a benefit rate which contains such a fraction in the third decimal is raised to the next higher multiple of 10 cents.

(e) Any individual entitled to a benefit, who is aware of any circumstances which could affect entitlement to benefits, eligibility for payment, or the amount of benefits, or result in the termination, suspension, or reduction of benefits, shall promptly report these circumstances to the Office. The Office may at any time require an individual receiving, or claiming entitlement to, benefits, either on his or her own behalf or on behalf of another, to submit a written statement giving pertinent information bearing upon the issue of whether or not an event has occurred which would cause such benefit to be terminated, or which would subject such benefit to reductions or suspension under the provisions of the Act. The failure of an individual to submit any such report or statement, properly executed, to the Office shall subject such benefit to reductions, suspension, or termination as the case may be.

§ 725.534 Reduction of State benefits.

No benefits under section 415 of part B of title IV of the Act shall be payable to the residents of a State which, after December 31, 1969, reduces the benefits payable to persons eligible to receive benefits under section 415 of the Act under State laws applicable to its general work force with regard to workers' compensation (including compensation for occupational disease), unemployment compensation, or disability insurance benefits which are funded in whole or in part out of employer contributions.

§ 725.535 Reductions; receipt of State or Federal benefit.

(a) As used in this section the term ''State or Federal benefit'' means a payment to an individual on account of total or partial disability or death due to pneumoconiosis only under State or Federal laws relating to workers' compensation. With respect to a claim for which benefits are payable for any month between July 1 and December 31, 1973, ''State benefit'' means a payment to a beneficiary made on account of disability or death due to pneumoconiosis under State laws relating to workers' compensation (including compensation for occupational disease), unemployment compensation, or disability insurance.

(b) Benefit payments to a beneficiary for any month are reduced (but not below zero) by an amount equal to any

payments of State or Federal benefits received by such beneficiary for such month.

(c) Where a State or Federal benefit is paid periodically but not monthly, or in a lump sum as a commutation of or a substitution for periodic benefits, the reduction under this section is made at such time or times and in such amounts as the Office determines will approximate as nearly as practicable the reduction required under paragraph (b) of this section. In making such a determination, a weekly State or Federal benefit is multiplied by 4⅓ and a biweekly benefit is multiplied by 2⅙ to ascertain the monthly equivalent for reduction purposes.

(d) Amounts paid or incurred or to be incurred by the individual for medical, legal, or related expenses in connection with this claim for State or Federal benefits (defined in paragraph (a) of this section) are excluded in computing the reduction under paragraph (b) of this section, to the extent that they are consistent with State or Federal Law. Such medical, legal, or related expenses may be evidenced by the State or Federal benefit awards, compromise agreement, or court order in the State or Federal benefit proceedings, or by such other evidence as the Office may require. Such other evidence may consist of:

(1) A detailed statement by the individual's attorney, physician, or the employer's insurance carrier; or

(2) Bills, receipts, or canceled checks; or

(3) Other evidence indicating the amount of such expenses; or

(4) Any combination of the foregoing evidence from which the amount of such expenses may be determinable. Such expenses shall not be excluded unless established by evidence as required by the Office.

§ 725.536 Reductions; excess earnings.

In the case of a surviving parent, brother, or sister, whose claim was filed at any time, or of a miner whose claim was filed on or after January 1, 1982, benefit payments are reduced as appropriate by an amount equal to the deduction which would be made with respect to excess earnings under the provisions of sections 203 (b), (f), (g), (h), (j), and (l) of the Social Security Act (42 U.S.C. 403 (b), (f), (g), (h), (j), and (l)), as if such benefit payments were benefits payable under section 202 of the Social Security Act (42 U.S.C. 402) (see §§ 404.428 through 404.456 of this title).

§ 725.537 Reductions; retroactive effect of an additional claim for benefits.

Except as provided in § 725.212(b), beginning with the month in which a person other than a miner files a claim and becomes entitled to benefits, the benefits of other persons entitled to benefits with respect to the same miner, are adjusted downward, if necessary, so that no more than the permissible amount of benefits (the maximum amount for the number of beneficiaries involved) will be paid.

§ 725.538 Reductions; effect of augmentation of benefits based on subsequent qualification of individual.

(a) Ordinarily, a written request that the benefits of a miner or surviving spouse be augmented on account of a qualified dependent is made as part of the claim for benefits. However, it may also be made thereafter.

(b) In the latter case, beginning with the month in which such a request is filed on account of a particular dependent and in which such dependent qualifies for augmentation purposes under this part, the augmented benefits attributable to other qualified dependents (with respect to the same miner or surviving spouse), if any, are adjusted downward, if necessary, so that the permissible amount of augmented benefits (the maximum amount for the number of dependents involved) will not be exceeded.

(c) Where, based on the entitlement to benefits of a miner or surviving spouse, a dependent would have qualified for augmentation purposes for a prior month of such miner's or surviving spouse's entitlement had such request been filed in such prior month, such request is effective for such prior month. For any month before the month of filing such request, however, otherwise correct benefits previously certified by the Office may not be changed. Rather the amount of the augmented benefit attributable to the

dependent filing such request in the later month is reduced for each month of the retroactive period to the extent that may be necessary. This means that for each month of the retroactive period, the amount payable to the dependent filing the later augmentation request is the difference, if any, between:

(1) The total amount of augmented benefits certified for payment for other dependents for that month, and

(2) The permissible amount of augmented benefits (the maximum amount for the number of dependents involved) payable for the month for all dependents, including the dependent filing later.

§ 725.539 More than one reduction event.

If a reduction for receipt of State or Federal benefits and a reduction on account of excess earnings are chargeable to the same month, the benefit for such month is first reduced (but not below zero) by the amount of the State or Federal benefits, and the remainder of the benefit for such month, if any, is then reduced (but not below zero) by the amount of excess earnings chargeable to such month.

OVERPAYMENTS; UNDERPAYMENTS

§ 725.540 Overpayments.

(a) *General.* As used in this subpart, the term ''overpayment'' includes:

(1) Payment where no amount is payable under this part;

(2) Payment in excess of the amount payable under this part;

(3) A payment under this part which has not been reduced by the amounts required by the Act (see § 725.533);

(4) A payment under this part made to a resident of a State whose residents are not entitled to benefits (see §§ 725.402 and 725.403);

(5) Payment resulting from failure to terminate benefits to an individual no longer entitled thereto;

(6) Duplicate benefits paid to a claimant on account of concurrent eligibility under this part and parts 410 or 727 (see § 725.4(d)) of this title or as provided in § 725.309.

(b) *Overpaid beneficiary is living.* If the beneficiary to whom an overpayment was made is living at the time of a determination of such overpayment, is entitled to benefits at the time of the overpayment, or at any time thereafter becomes so entitled, no benefit for any month is payable to such individual, except as provided in paragraph (c) of this section, until an amount equal to the amount of the overpayment has been withheld or refunded.

(c) *Adjustment by withholding part of a monthly benefit.* Adjustment under paragraph (b) of this section may be effected by withholding a part of the monthly benefit payable to a beneficiary where it is determined that:

(1) Withholding the full amount each month would deprive the beneficiary of income required for ordinary and necessary living expenses;

(2) The overpayment was not caused by the beneficiary's intentionally false statement or representation, or willful concealment of, or deliberate failure to furnish, material information; and

(3) Recoupment can be effected in an amount of not less than $ 10 a month and at a rate which would not unreasonably extend the period of adjustment.

(d) *Overpaid beneficiary dies before adjustment.* If an overpaid beneficiary dies before adjustment is completed under the provisions of paragraph (b) of this section, recovery of the overpayment shall be effected through repayment by the estate of the deceased overpaid beneficiary, or by withholding of amounts due the estate of such deceased beneficiary, or both.

§ 725.541 Notice of waiver of adjustment or recovery of overpayment.

Whenever a determination is made that more than the correct amount of payment has been made, notice of the provisions of section 204(b) of the Social Security Act regarding waiver of adjustment or recovery shall be sent to the overpaid individual, to any other individual against whom adjustment or recovery of the overpayment is to be effected, and to any operator or carrier which may be liable to such overpaid individual.

§ 725.542 When waiver of adjustment or recovery may be applied.

There shall be no adjustment or recovery of an overpayment in any case where an incorrect payment has been made with respect to an individual:

(a) Who is without fault, and where

(b) Adjustment or recovery would either:

(1) Defeat the purpose of title IV of the Act, or

(2) Be against equity and good conscience.

§ 725.543 Standards for waiver of adjustment or recovery.

The standards for determining the applicability of the criteria listed in § 725.542 shall be the same as those applied by the Social Security Administration under §§ 404.506 through 404.512 of this title.

§ 725.544 Collection and compromise of claims for overpayment.

(a) *General effect of 31 U.S.C. 3711.* In accordance with 31 U.S.C. 3711 and applicable regulations, claims by the Office against an individual for recovery of an overpayment under this part not exceeding the sum of $100,000, exclusive of interest, may be compromised, or collection suspended or terminated, where such individual or his or her estate does not have the present or prospective ability to pay the full amount of the claim within a reasonable time (see paragraph (c) of this section), or the cost of collection is likely to exceed the amount of recovery (see paragraph (d) of this section), except as provided under paragraph (b) of this section.

(b) *When there will be no compromise, suspension, or termination of collection of a claim for overpayment.* (1) In any case where the overpaid individual is alive, a claim for overpayment will not be compromised, nor will there be suspension or termination of collection of the claim by the Office, if there is an indication of fraud, the filing of a false claim, or misrepresentation on the part of such individual or on the part of any other party having any interest in the claim.

(2) In any case where the overpaid individual is deceased:

(i) A claim for overpayment in excess of $ 5,000 will not be compromised, nor will there be suspension or termination of collection of the claim by the Office if there is an indication of fraud, the filing of a false claim, or misrepresentation on the part of such deceased individual; and

(ii) A claim for overpayment, regardless of the amount, will not be compromised, nor will there be suspension or termination of collection of the claim by the Office if there is an indication that any person other than the deceased overpaid individual had a part in the fraudulent action which resulted in the overpayment.

(c) *Inability to pay claim for recovery of overpayment.* In determining whether the overpaid individual is unable to pay a claim for recovery of an overpayment under this part, the Office shall consider the individual's age, health, present and potential income (including inheritance prospects), assets (e.g., real property, savings account), possible concealment or improper transfer of assets, and assets or income of such individual which may be available in enforced collection proceedings. The Office will also consider exemptions available to such individual under the pertinent State or Federal law in such proceedings. In the event the overpaid individual is deceased, the Office shall consider the available assets of the estate, taking into account any liens or superior claims against the estate.

(d) *Cost of collection or litigative probabilities.* Where the probable costs of recovering an overpayment under this part would not justify enforced collection proceedings for the full amount of the claim, or where there is doubt concerning the Office's ability to establish its claim as well as the time which it will take to effect such collection, a compromise or settlement for less than the full amount may be considered.

(e) *Amount of compromise.* The amount to be accepted in compromise of a claim for overpayment under this part shall bear a reasonable relationship to the amount which can be recovered by enforced collection proceedings, giving due consideration to the exemption available to the overpaid individual under State or Federal law and the time which collection will take.

(f) *Payment.* Payment of the amount the Office has agreed to accept as a compromise in full settlement of a claim for recovery of an overpayment under this part shall be made within the time and in the manner set by the Office. A claim for the overpayment shall not be considered compromised or settled until the full payment of the compromised amount has been made within the time and manner set by the Office. Failure of the overpaid individual or his or her estate to make such payment as provided shall result in reinstatement of the full amount of the overpayment less any amounts paid prior to such default.

§ 725.545 Underpayments.

(a) *General.* As used in this subpart, the term ''underpayment'' includes a payment in an amount less than the amount of the benefit due for such month, and nonpayment where some amount of such benefits is payable.

(b) *Underpaid individual is living.* If an individual to whom an underpayment was made is living, the deficit represented by such underpayment shall be paid to such individual either in a single payment (if he or she is not entitled to a monthly benefit or if a single payment is requested by the claimant in writing) or by increasing one or more monthly benefit payments to which such individual becomes entitled.

(c) *Underpaid individual dies before adjustment of underpayment.* If an individual to whom an underpayment was made dies before receiving payment of the deficit or negotiating the check or checks representing payment of the deficit, such payment shall be distributed to the living person (or persons) in the highest order of priority as follows:

(1) The deceased individual's surviving spouse who was either:

(i) Living in the same household with the deceased individual at the time of such individual's death; or

(ii) In the case of a deceased miner, entitled for the month of death to black lung benefits as his or her surviving spouse or surviving divorced spouse.

(2) In the case of a deceased miner or spouse his or her child entitled to benefits as the surviving child of such miner or surviving spouse for the month in which such miner or spouse died (if more than one such child, in equal shares to each such child).

(3) In the case of a deceased miner, his parent entitled to benefits as the surviving parent of such miner for the month in which such miner died (if more than one such parent, in equal shares to each such parent).

(4) The surviving spouse of the deceased individual who does not qualify under paragraph (c)(1) of this section.

(5) The child or children of the deceased individual who do not qualify under paragraph (c)(2) of this section (if more than one such child, in equal shares to each such child).

(6) The parent or parents of the deceased individual who do not qualify under paragraph (c)(3) of this section (if more than one such parent, in equal shares to each such parent).

(7) The legal representative of the estate of the deceased individual as defined in paragraph (e) of this section.

(d) *Deceased beneficiary.* In the event that a person, who is otherwise qualified to receive payments as the result of a deficit caused by an underpayment under the provisions of paragraph (c) of this section, dies before receiving payment or before negotiating the check or checks representing such payment, his or her share of the underpayment shall be divided among the remaining living person(s) in the same order or priority. In the event that there is (are) no other such person(s), the underpayment shall be paid to the living person(s) in the next lower order of priority under paragraph (c) of this section.

(e) *Definition of legal representative.* The term ''legal representative,'' for the purpose of qualifying for receipt of an underpayment, generally means the executor or the administrator of the estate of the deceased beneficiary. However, it may also include an individual, institution or organization acting on behalf of an unadministered estate, provided the person can give the Office good acquittance (as defined in paragraph (f) of this section). The following persons may qualify as legal representative for purposes of this section, provided they can give the Office good acquittance:

(1) A person who qualifies under a State's ''small estate'' statute; or

(2) A person resident in a foreign country who under the laws and customs of that country, has the right to receive assets of the estate; or

(3) A public administrator; or

(4) A person who has the authority under applicable law to collect the assets of the estate of the deceased beneficiary.

(f) *Definition of ''good acquittance.''* A person is considered to give the Office ''good acquittance'' when payment to that person will release the Office from further liability for such payment.

§ 725.546 Relation to provisions for reductions or increases.

The amount of an overpayment or an underpayment is the difference between the amount to which the beneficiary was actually entitled and the amount paid. Overpayment and underpayment simultaneously outstanding against the same beneficiary shall first be adjusted against one another before adjustment pursuant to the other provisions of this subpart.

§ 725.547 Applicability of overpayment and underpayment provisions to operator or carrier.

(a) The provisions of this subpart relating to overpayments and underpayments shall be applicable to overpayments and underpayments made by responsible operators or their insurance carriers, as appropriate.

(b) No operator or carrier may recover, or make an adjustment of, an overpayment without prior application to, and approval by, the Office which shall exercise full supervisory authority over the recovery or adjustment of all overpayments.

§ 725.548 Procedures applicable to overpayments and underpayments.

(a) In any case involving either overpayments or underpayments, the Office may take any necessary action, and district directors may issue appropriate orders to protect the rights of the parties.

(b) Disputes arising out of orders so issued shall be resolved by the procedures set out in subpart F of this part.

Subpart I—Enforcement of Liability; Reports

§ 725.601 Enforcement generally.

(a) The Act, together with certain incorporated provisions from the Longshoremen's and Harbor Workers' Compensation Act, contains a number of provisions which subject an operator or other employer, claimants and others to penalties for failure to comply with certain provisions of the Act, or failure to commence and continue prompt periodic payments to a beneficiary.

(b) It is the policy and intent of the Department to vigorously enforce the provisions of this part through the use of the remedies provided by the Act. Accordingly, if an operator refuses to pay benefits with respect to a claim for which the operator has been adjudicated liable, the Director shall invoke and execute the lien on the property of the operator as described in § 725.603. Enforcement of this lien shall be pursued in an appropriate U.S. district court. If the Director determines that the remedy provided by § 725.603 may not be sufficient to guarantee the continued compliance with the terms of an award or awards against the operator, the Director shall in addition seek an injunction in the U.S. district court to prohibit future noncompliance by the operator and such other relief as the court considers appropriate (see § 725.604). If an operator unlawfully suspends or terminates the payment of benefits to a claimant, the district director shall declare the award in default and proceed in accordance with § 725.605. In all cases payments in addition to compensation (see § 725.607) and interest (see § 725.608) shall be sought by the Director or awarded by the district director.

(c) In certain instances the remedies provided by the Act are concurrent; that is, more than one remedy might be appropriate in any given case. In such a case, the Director shall select the remedy or remedies appropriate for the enforcement action. In making this selection, the Director shall consider the best interests of the claimant as well as those of the fund.

§ 725.602 Reimbursement of the fund.

(a) In any case in which the fund has paid benefits, including medical benefits, on behalf of an operator or other employer which is determined liable therefore, or liable for a part thereof, such operator or other employer shall simultaneously with the first payment of benefits made to the beneficiary, reimburse the fund (with interest) for the full amount of all benefit payments made by the fund with respect to the claim.

(b) In any case where benefit payments have been made by the fund, the fund shall be subrogated to the rights of the beneficiary. The Secretary of Labor may, as appropriate, exercise such subrogation rights.

§ 725.603 Payments by the fund on behalf of an operator; liens.

(a) If an amount is paid out of the fund to an individual entitled to benefits under this part or part 727 of this subchapter (see § 725.4(d)) on behalf of an operator or other employer which is or was required to pay or secure the payment of all or a portion of such amount (see § 725.522), the operator or other employer shall be liable to the United States for repayment to the fund of the amount of benefits properly attributable to such operator or other employer.

(b) If an operator or other employer liable to the fund refuses to pay, after demand, the amount of such liability, there shall be a lien in favor of the United States upon all property and rights to property, whether real or personal, belonging to such operator or other employer. The lien arises on the date on which such liability is finally determined, and continues until it is satisfied or becomes unenforceable by reason of lapse of time.

(c)(1) Except as otherwise provided under this section, the priority of the lien shall be determined in the same manner as under section 6323 of the Internal Revenue Code (26 U.S.C.).

(2) In the case of a bankruptcy or insolvency proceeding, the lien imposed under this section shall be treated in the same manner as a lien for taxes due and owing to the United States for purposes of the Bankruptcy Act or section 3466 of the Revised Statutes (31 U.S.C. 191).

(3) For purposes of applying section 6323(a) of the Internal Revenue Code (26 U.S.C.) to determine the priority between the lien imposed under this section and the Federal tax lien, each lien shall be treated as a judgment lien arising as of the time notice of such lien is filed.

(4) For purposes of the section, notice of the lien imposed hereunder shall be filed in the same manner as under section 6323(f) (disregarding paragraph (4) thereof) and (g) of the Internal Revenue Code (26 U.S.C.).

(5) In any case where there has been a refusal or neglect to pay the liability imposed under this section, the Secretary of Labor may bring a civil action in a district court of the United States to enforce the lien of the United States under this section with respect to such liability or to subject any property, of whatever nature, of the operator, or in which it has any right, title, or interest, to the payment of such liability.

(6) The liability imposed by this paragraph may be collected at a proceeding in court if the proceeding is commenced within 6 years after the date upon which the liability was finally determined, or prior to the expiration of any period for collection agreed upon in writing by the operator and the United States before the expiration of such 6-year period. This period of limitation shall be suspended for any period during which the assets of the operator are in the custody or control of any court of the United States, or of any State, or the District of Columbia, and for 6 months thereafter, and for any period during which the operator is outside the United States if such period of absence is for a continuous period of at least 6 months.

§ 725.604 Enforcement of final awards.

Notwithstanding the provisions of § 725.603, if an operator or other employer or its officers or agents fails to comply with an order awarding benefits that has become final, any beneficiary of such award or the district director may apply for the enforcement of the order to the Federal district court for the judicial district in which

the injury occurred (or to the U.S. District Court for the District of Columbia if the injury occurred in the District). If the court determines that the order was made and served in accordance with law, and that such operator or other employer or its officers or agents have failed to comply therewith, the court shall enforce obedience to the order by writ of injunction or by other proper process, mandatory or otherwise, to enjoin upon such operator or other employer and its officers or agents compliance with the order.

§ 725.605 Defaults.

(a) Except as is otherwise provided in this part, no suspension, termination or other failure to pay benefits awarded to a claimant is permitted. If an employer found liable for the payment of such benefits fails to make such payments within 30 days after any date on which such benefits are due and payable, the person to whom such benefits are payable may, within one year after such default, make application to the district director for a supplementary order declaring the amount of the default.

(b) If after investigation, notice and hearing as provided in subparts E and F of this part, a default is found, the district director or the administrative law judge, if a hearing is requested, shall issue a supplementary order declaring the amount of the default, if any. In cases where a lump-sum award has been made, if the payment in default is an installment, the district director or administrative law judge, may, in his or her discretion, declare the whole of the award as the amount in default. The applicant may file a certified copy of such supplementary order with the clerk of the Federal district court for the judicial district in which the operator has its principal place of business or maintains an office or for the judicial district in which the injury occurred. In case such principal place of business or office is in the District of Columbia, a copy of such supplementary order may be filed with the clerk of the U.S. District Court for the District of Columbia. Such supplementary order shall be final and the court shall, upon the filing of the copy, enter judgment for the amount declared in default by the supplementary order if such supplementary order is in accordance with law. Review of the judgment may be had as in civil suits for damages at common law. Final proceedings to execute the judgment may be had by writ of execution in the form used by the court in suits at common law in actions of assumpsit. No fee shall be required for filing the supplementary order nor for entry of judgment thereon, and the applicant shall not be liable for costs in a proceeding for review of the judgment unless the court shall otherwise direct. The court shall modify such judgment to conform to any later benefits order upon presentation of a certified copy thereof to the court.

(c) In cases where judgment cannot be satisfied by reason of the employer's insolvency or other circumstances precluding payment, the district director shall make payment from the fund, and in addition, provide any necessary medical, surgical, and other treatment required by subpart J of this part. A defaulting employer shall be liable to the fund for payment of the amounts paid by the fund under this section; and for the purpose of enforcing this liability, the fund shall be subrogated to all the rights of the person receiving such payments or benefits.

§ 725.606 Security for the payment of benefits.

(a) Following the issuance of an effective order by a district director (see § 725.418), administrative law judge (see § 725.479), Benefits Review Board, or court that requires the payment of benefits by an operator that has failed to secure the payment of benefits in accordance with section 423 of the Act and § 726.4 of this subchapter, or by a coal mine construction or transportation employer, the Director may request that the operator secure the payment of all benefits ultimately payable on the claim. Such operator or other employer shall thereafter immediately secure the payment of benefits in accordance with the provisions of this section, and provide proof of such security to the Director. Such security may take the form of an indemnity bond, a deposit of cash or negotiable securities in compliance with §§ 726.106(c) and

726.107 of this subchapter, or any other form acceptable to the Director.

(b) The amount of security initially required by this section shall be determined as follows:

(1) In a case involving an operator subject to section 423 of the Act and § 726.4 of this subchapter, the amount of the security shall not be less than $175,000, and may be a higher amount as determined by the Director, taking into account the life expectancies of the claimant and any dependents using the most recent life expectancy tables published by the Social Security Administration; or

(2) In a case involving a coal mine construction or transportation employer, the amount of the security shall be determined by the Director, taking into account the life expectancies of the claimant and any dependents using the most recent life expectancy tables published by the Social Security Administration.

(c) If the operator or other employer fails to provide proof of such security to the Director within 30 days of its receipt of the Director's request to secure the payment of benefits issued under paragraph (a) of this section, the appropriate adjudication officer shall issue an order requiring the operator or other employer to make a deposit of negotiable securities with a Federal Reserve Bank in the amount required by paragraph (b). Such securities shall comply with the requirements of §§ 726.106(c) and 726.107 of this subchapter. In a case in which the effective order was issued by a district director, the district director shall be considered the appropriate adjudication officer. In any other case, the administrative law judge who issued the most recent decision in the case, or such other administrative law judge as the Chief Administrative Law Judge shall designate, shall be considered the appropriate adjudication officer, and shall issue an order under this paragraph on motion of the Director. The administrative law judge shall have jurisdiction to issue an order under this paragraph notwithstanding the pendency of an appeal of the award of benefits with the Benefits Review Board or court.

(d) An order issued under this section shall be considered effective when issued. Disputes regarding such orders shall be resolved in accordance with subpart F of this part.

(e) Notwithstanding any further review of the order in accordance with subpart F of this part, if an operator or other employer subject to an order issued under this section fails to comply with such order, the appropriate adjudication officer shall certify such non-compliance to the appropriate United States district court in accordance with § 725.351(c).

(f) Security posted in accordance with this section may be used to make payment of benefits that become due with respect to the claim in accordance with § 725.502. In the event that either the order awarding compensation or the order issued under this section is vacated or reversed, the operator or other employer may apply to the appropriate adjudication officer for an order authorizing the return of any amounts deposited with a Federal Reserve Bank and not yet disbursed, and such application shall be granted. If at any time the Director determines that additional security is required beyond that initially required by paragraph (b) of this section, he may request the operator or other employer to increase the amount. Such request shall be treated as if it were issued under paragraph (a) of this section.

(g) If a coal mine construction or transportation employer fails to comply with an order issued under paragraph (c), and such employer is a corporation, the provisions of § 725.609 shall be applicable to the president, secretary, and treasurer of such employer.

§ 725.607 Payments in addition to compensation.

(a) If any benefits payable under the terms of an award by a district director (§ 725.419(d)), a decision and order filed and served by an administrative law judge (§ 725.478), or a decision filed by the Board or a U.S. court of appeals, are not paid by an operator or other employer ordered to make such payments within 10 days after such payments become due, there shall be added to such unpaid benefits an amount

equal to 20 percent thereof, which shall be paid to the claimant at the same time as, but in addition to, such benefits, unless review of the order making such award is sought as provided in section 21 of the LHWCA and an order staying payments has been issued.

(b) If, on account of an operator's or other employer's failure to pay benefits as provided in paragraph (a) of this section, benefit payments are made by the fund, the eligible claimant shall nevertheless be entitled to receive such additional compensation to which he or she may be eligible under paragraph (a) of this section, with respect to all amounts paid by the fund on behalf of such operator or other employer.

(c) The fund shall not be liable for payments in addition to compensation under any circumstances.

§ 725.608 Interest.

(a)(1) In any case in which an operator fails to pay benefits that are due (§ 725.502), the beneficiary shall also be entitled to simple annual interest, computed from the date on which the benefits were due. The interest shall be computed through the date on which the operator paid the benefits, except that the beneficiary shall not be entitled to interest for any period following the date on which the beneficiary received payment of any benefits from the fund pursuant to § 725.522.

(2) In any case in which an operator is liable for the payment of retroactive benefits, the beneficiary shall also be entitled to simple annual interest on such benefits, computed from 30 days after the date of the first determination that such an award should be made. The first determination that such an award should be made may be a district director's initial determination of entitlement, an award made by an administrative law judge or a decision by the Board or a court, whichever is the first such determination of entitlement made upon the claim.

(3) In any case in which an operator is liable for the payment of additional compensation (§ 725.607), the beneficiary shall also be entitled to simple annual interest computed from the date upon which the beneficiary's right to additional compensation first arose.

(4) In any case in which an operator is liable for the payment of medical benefits, the beneficiary or medical provider to whom such benefits are owed shall also be entitled to simple annual interest, computed from the date upon which the services were rendered, or from 30 days after the date of the first determination that the miner is generally entitled to medical benefits, whichever is later. The first determination that the miner is generally entitled to medical benefits may be a district director's initial determination of entitlement, an award made by an administrative law judge or a decision by the Board or a court, whichever is the first such determination of general entitlement made upon the claim. The interest shall be computed through the date on which the operator paid the benefits, except that the beneficiary or medical provider shall not be entitled to interest for any period following the date on which the beneficiary or medical provider received payment of any benefits from the fund pursuant to § 725.522 or subpart I of this part.

(b) If an operator or other employer fails or refuses to pay any or all benefits due pursuant to an award of benefits or an initial determination of eligibility made by the district director and the fund undertakes such payments, such operator or other employer shall be liable to the fund for simple annual interest on all payments made by the fund for which such operator is determined liable, computed from the first date on which such benefits are paid by the fund, in addition to such operator's liability to the fund, as is otherwise provided in this part. Interest payments owed pursuant to this paragraph shall be paid directly to the fund.

(c) In any case in which an operator is liable for the payment of an attorney's fee pursuant to § 725.367, and the attorney's fee is payable because the award of benefits has become final, the attorney shall also be entitled to simple annual interest, computed from the date on which the attorney's fee was awarded. The interest shall be computed through the date on which the operator paid the attorney's fee.

(d) The rates of interest applicable to paragraphs (a), (b), and (c) of this section shall be computed as follows:

(1) For all amounts outstanding prior to January 1, 1982, the rate shall be 6% simple annual interest;

(2) For all amounts outstanding for any period during calendar year 1982, the rate shall be 15% simple annual interest; and

(3) For all amounts outstanding during any period after calendar year 1982, the rate shall be simple annual interest at the rate established by section 6621 of the Internal Revenue Code (26 U.S.C.) which is in effect for such period.

(e) The fund shall not be liable for the payment of interest under any circumstances, other than the payment of interest on advances from the United States Treasury as provided by section 9501(c) of the Internal Revenue Code (26 U.S.C.).

§ 725.609 Enforcement against other persons.

In any case in which an award of benefits creates obligations on the part of an operator or insurer that may be enforced under the provisions of this subpart, such obligations may also be enforced, in the discretion of the Secretary or district director, as follows:

(a) In a case in which the operator is a sole proprietorship or partnership, against any person who owned, or was a partner in, such operator during any period commencing on or after the date on which the miner was last employed by the operator;

(b) In a case in which the operator is a corporation that failed to secure its liability for benefits in accordance with section 423 of the Act and § 726.4, and the operator has not secured its liability for the claim in accordance with § 725.606, against any person who served as the president, secretary, or treasurer of such corporation during any period commencing on or after the date on which the miner was last employed by the operator;

(c) In a case in which the operator is no longer capable of assuming its liability for the payment of benefits (§ 725.494(e)), against any operator which became a successor operator with respect to the liable operator (§ 725.492) after the date on which the claim was filed, beginning with the most recent such successor operator;

(d) In a case in which the operator is no longer capable of assuming its liability for the payment of benefits (§ 725.494(e)), and such operator was a subsidiary of a parent company or a product of a joint venture, or was substantially owned or controlled by another business entity, against such parent entity, any member of such joint venture, or such controlling business entity; or

(e) Against any other person who has assumed or succeeded to the obligations of the operator or insurer by operation of any state or federal law, or by any other means.

§ 725.620 Failure to secure benefits; other penalties.

(a) If an operator fails to discharge its insurance obligations under the Act, the provisions of subpart D of part 726 of this subchapter shall apply.

(b) Any employer who knowingly transfers, sells, encumbers, assigns, or in any manner disposes of, conceals, secrets, or destroys any property belonging to such employer, after one of its employees has been injured within the purview of the Act, and with intent to avoid the payment of benefits under the Act to such miner or his or her dependents, shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than $1,000, or by imprisonment for not more than one year, or by both. In any case where such employer is a corporation, the president, secretary, and treasurer thereof shall be also severally liable for such penalty or imprisonment as well as jointly liable with such corporation for such fine.

(c) No agreement by a miner to pay any portion of a premium paid to a carrier by such miner's employer or to contribute to a benefit fund or department maintained by such employer for the purpose of providing benefits or medical services and supplies as required by this part shall be valid; and any employer who makes a deduction for such purpose from the pay of a miner entitled to benefits under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than $1,000.

(d) No agreement by a miner to waive his or her right to benefits under the Act and the provisions of this part shall be valid.

(e) This section shall not affect any other liability of the employer under this part.

§ 725.621 Reports.

(a) Upon making the first payment of benefits and upon suspension, reduction, or increase of payments, the operator or other employer responsible for making payments shall immediately notify the district director of the action taken, in accordance with a form prescribed by the Office.

(b) Within 16 days after final payment of benefits has been made by an employer, such employer shall so notify the district director, in accordance with a form prescribed by the Office, stating that such final payment, has been made, the total amount of benefits paid, the name of the beneficiary, and such other information as the Office deems pertinent.

(c) The Director may from time to time prescribe such additional reports to be made by operators, other employers, or carriers as the Director may consider necessary for the efficient administration of the Act.

(d) Any employer who fails or refuses to file any report required of such employer under this section shall be subject to a civil penalty not to exceed $500 for each failure or refusal, which penalty shall be determined in accordance with the procedures set forth in subpart D of part 726 of this subchapter, as appropriate. The maximum penalty applicable to any violation of this paragraph that takes place after January 19, 2001 shall be $550.

(e) No request for information or response to such request shall be considered a report for purposes of this section or the Act, unless it is so designated by the Director or by this section.

Subpart J—Medical Benefits and Vocational Rehabilitation

§ 725.701 Availability of medical benefits.

(a) A miner who is determined to be eligible for benefits under this part or part 727 of this subchapter (see § 725.4(d)) is entitled to medical benefits as set forth in this subpart as of the date of his or her claim, but in no event before January 1, 1974. No medical benefits shall be provided to the survivor or dependent of a miner under this part.

(b) A responsible operator, other employer, or where there is neither, the fund, shall furnish a miner entitled to benefits under this part with such medical, surgical, and other attendance and treatment, nursing and hospital services, medicine and apparatus, and any other medical service or supply, for such periods as the nature of the miner's pneumoconiosis and disability requires.

(c) The medical benefits referred to in paragraphs (a) and (b) of this section shall include palliative measures useful only to prevent pain or discomfort associated with the miner's pneumoconiosis or attendant disability.

(d) The costs recoverable under this subpart shall include the reasonable cost of travel necessary for medical treatment (to be determined in accordance with prevailing United States government mileage rates) and the reasonable documented cost to the miner or medical provider incurred in communicating with the employer, carrier, or district director on matters connected with medical benefits.

(e) If a miner receives a medical service or supply, as described in this section, for any pulmonary disorder, there shall be a rebuttable presumption that the disorder is caused or aggravated by the miner's pneumoconiosis. The party liable for the payment of benefits may rebut the presumption by producing credible evidence that the medical service or supply provided was for a pulmonary disorder apart from those previously associated with the miner's disability, or was beyond that necessary to effectively treat a covered disorder, or was not for a pulmonary disorder at all.

(f) Evidence that the miner does not have pneumoconiosis or is not totally disabled by pneumoconiosis arising out of coal mine employment is insufficient to defeat a request for coverage of any medical service or supply under this subpart. In determining whether

the treatment is compensable, the opinion of the miner's treating physician may be entitled to controlling weight pursuant to § 718.104(d). A finding that a medical service or supply is not covered under this subpart shall not otherwise affect the miner's entitlement to benefits.

§ 725.702 Claims for medical benefits only under section 11 of the Reform Act.

(a) Section 11 of the Reform Act directs the Secretary of Health, Education and Welfare to notify each miner receiving benefits under part B of title IV of the Act that he or she may file a claim for medical treatment benefits described in this subpart. Section 725.308(b) provides that a claim for medical treatment benefits shall be filed on or before December 31, 1980, unless the period is enlarged for good cause shown. This section sets forth the rules governing the processing, adjudication, and payment of claims filed under section 11.

(b)(1) A claim filed pursuant to the notice described in paragraph (a) of this section shall be considered a claim for medical benefits only, and shall be filed, processed, and adjudicated in accordance with the provisions of this part, except as provided in this section. While a claim for medical benefits must be treated as any other claim filed under part C of title IV of the Act, the Department shall accept the Social Security Administration's finding of entitlement as its initial determination.

(2) In the case of a part B beneficiary whose coal mine employment terminated before January 1, 1970, the Secretary shall make an immediate award of medical benefits. Where the part B beneficiary's coal mine employment terminated on or after January 1, 1970, the Secretary shall immediately authorize the payment of medical benefits and thereafter inform the responsible operator, if any, of the operator's right to contest the claimant's entitlement for medical benefits.

(c) A miner on whose behalf a claim is filed under this section (see § 725.301) must have been alive on March 1, 1978, in order for the claim to be considered.

(d) The criteria contained in subpart C of part 727 of this subchapter (see § 725.4(d)) are applicable to claims for medical benefits filed under this section.

(e) No determination made with respect to a claim filed under this section shall affect any determination previously made by the Social Security Administration. The Social Security Administration may, however, reopen a previously approved claim if the conditions set forth in § 410.672(c) of this chapter are present. These conditions are generally limited to fraud or concealment.

(f) If medical benefits are awarded under this section, such benefits shall be payable by a responsible coal mine operator (see subpart G of this part), if the miner's last employment occurred on or after January 1, 1970, and in all other cases by the fund. An operator which may be required to provide medical treatment benefits to a miner under this section shall have the right to participate in the adjudication of the claim as is otherwise provided in this part.

(g) Any miner whose coal mine employment terminated after January 1, 1970, may be required to submit to a medical examination requested by an identified operator. The unreasonable refusal to submit to such an examination shall have the same consequences as are provided under § 725.414.

(h) If a miner is determined eligible for medical benefits in accordance with this section, such benefits shall be provided from the date of filing, except that such benefits may also include payments for any unreimbursed medical treatment costs incurred personally by such miner during the period from January 1, 1974, to the date of filing which are attributable to medical care required as a result of the miner's total disability due to pneumoconiosis. No reimbursement for health insurance premiums, taxes attributable to any public health insurance coverage, or other deduction or payments made for the purpose of securing third party liability for medical care costs is authorized by this section. If a miner seeks reimbursement for medical care costs personally incurred before the filing of a claim under this section, the

district director shall require documented proof of the nature of the medical service provided, the identity of the medical provider, the cost of the service, and the fact that the cost was paid by the miner, before reimbursement for such cost may be awarded.

§ 725.703 Physician defined.

The term ''physician'' includes only doctors of medicine (MD) and osteopathic practitioners within the scope of their practices as defined by State law. No treatment or medical services performed by any other practitioner of the healing arts is authorized by this part, unless such treatment or service is authorized and supervised both by a physician as defined in this section and the district director.

§ 725.704 Notification of right to medical benefits; authorization of treatment.

(a) Upon notification to a miner of such miner's entitlement to benefits, the Office shall provide the miner with a list of authorized treating physicians and medical facilities in the area of the miner's residence. The miner may select a physician from this list or may select another physician with approval of the Office. Where emergency services are necessary and appropriate, authorization by the Office shall not be required.

(b) The Office may, on its own initiative, or at the request of a responsible operator, order a change of physicians or facilities, but only where it has been determined that the change is desirable or necessary in the best interest of the miner. The miner may change physicians or facilities subject to the approval of the Office.

(c) If adequate treatment cannot be obtained in the area of the claimant's residence, the Office may authorize the use of physicians or medical facilities outside such area as well as reimbursement for travel expenses and overnight accommodations.

§ 725.705 Arrangements for medical care.

(a) *Operator liability*. If an operator has been determined liable for the payment of benefits to a miner, the Office shall notify such operator or insurer of the names, addresses, and telephone numbers of the authorized providers of medical benefits chosen by an entitled miner, and shall require the operator or insurer to:

(1) Notify the miner and the providers chosen that such operator will be responsible for the cost of medical services provided to the miner on account of the miner's total disability due to pneumoconiosis;

(2) Designate a person or persons with decisionmaking authority with whom the Office, the miner and authorized providers may communicate on matters involving medical benefits provided under this subpart and notify the Office, miner and providers of such designation;

(3) Make arrangements for the direct reimbursement of providers for their services.

(b) *Fund liability*. If there is no operator found liable for the payment of benefits, the Office shall make necessary arrangements to provide medical care to the miner, notify the miner and medical care facility selected of the liability of the fund, designate a person or persons with whom the miner or provider may communicate on matters relating to medical care, and make arrangements for the direct reimbursement of the medical provider.

§ 725.706 Authorization to provide medical services.

(a) Except as provided in paragraph (b) of this section, medical services from an authorized provider which are payable under § 725.701 shall not require prior approval of the Office or the responsible operator.

(b) Except where emergency treatment is required, prior approval of the Office or the responsible operator shall be obtained before any hospitalization or surgery, or before ordering an apparatus for treatment where the purchase price exceeds $300. A request for approval of non-emergency hospitalization or surgery shall be acted upon expeditiously, and approval or disapproval will be given by telephone if a written response cannot be given within 7 days following the request. No employee of the Department of Labor, other than a district director or the Chief, Branch of Medical Analysis and

Services, DCMWC, is authorized to approve a request for hospitalization or surgery by telephone.

(c) Payment for medical services, treatment, or an apparatus shall be made at no more than the rate prevailing in the community in which the providing physician, medical facility or supplier is located.

§ 725.707 Reports of physicians and supervision of medical care.

(a) Within 30 days following the first medical or surgical treatment provided under § 725.701, the treating physician or facility shall furnish to the Office and the responsible operator, if any, a report of such treatment.

(b) In order to permit continuing supervision of the medical care provided to the miner with respect to the necessity, character and sufficiency of any medical care furnished or to be furnished, the treating physician, facility, employer or carrier shall provide such reports in addition to those required by paragraph (a) of this section as the Office may from time to time require. Within the discretion of the district director, payment may be refused to any medical provider who fails to submit any report required by this section.

§ 725.708 Disputes concerning medical benefits.

(a) Whenever a dispute develops concerning medical services under this part, the district director shall attempt to informally resolve such dispute. In this regard the district director may, on his or her own initiative or at the request of the responsible operator order the claimant to submit to an examination by a physician selected by the district director.

(b) If no informal resolution is accomplished, the district director shall refer the case to the Office of Administrative Law Judges for hearing in accordance with this part. Any such hearing shall be scheduled at the earliest possible time and shall take precedence over all other requests for hearing except for prior requests for hearing arising under this section and as provided by § 727.405 of this subchapter (see § 725.4(d)). During the pendency of such adjudication, the Director may order the payment of medical benefits prior to final adjudication under the same conditions applicable to benefits awarded under § 725.522.

(c) In the development or adjudication of a dispute over medical benefits, the adjudication officer is authorized to take whatever action may be necessary to protect the health of a totally disabled miner.

(d) Any interested medical provider may, if appropriate, be made a party to a dispute over medical benefits.

§ 725.710 Objective of vocational rehabilitation.

The objective of vocational rehabilitation is the return of a miner who is totally disabled for work in or around a coal mine and who is unable to utilize those skills which were employed in the miner's coal mine employment to gainful employment commensurate with such miner's physical impairment. This objective may be achieved through a program of re-evaluation and redirection of the miner's abilities, or retraining in another occupation, and selective job placement assistance.

§ 725.711 Requests for referral to vocational rehabilitation assistance.

Each miner who has been determined entitled to receive benefits under part C of title IV of the Act shall be informed by the OWCP of the availability and advisability of vocational rehabilitation services. If such miner chooses to avail himself or herself of vocational rehabilitation, his or her request shall be processed and referred by OWCP vocational rehabilitation advisors pursuant to the provisions of §§ 702.501 through 702.508 of this chapter as is appropriate.

PART 726—BLACK LUNG BENEFITS; REQUIREMENTS FOR COAL MINE OPERATOR'S INSURANCE

Subpart A—General

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AUTHORITY: 5 U.S.C. 301, Reorganization Plan No. 6 of 1950, 15 FR 3174, 30 U.S.C. 901 *et seq.*, 902(f), 925, 932, 933, 934, 936, 945; 33 U.S.C. 901 *et seq.*, Secretary's Order 7–87, 52 FR 48466, Employment Standards Order No. 90–02.

SOURCE: 65 FR 80097, Dec. 20, 2000, unless otherwise noted.

Subpart A—General

§ 726.1 Statutory insurance requirements for coal mine operators.

Section 423 of title IV of the Federal Coal Mine Health and Safety Act as amended (hereinafter the Act) requires each coal mine operator who is operating or has operated a coal mine in a State which is not included in the list published by the Secretary (see part 722 of this subchapter) to secure the payment of benefits for which he may be found liable under section 422 of the Act and the provisions of this subchapter by either:

(a) Qualifying as a self-insurer, or

(b) By subscribing to and maintaining in force a commercial insurance contract (including a policy or contract procured from a State agency).

§ 726.2 Purpose and scope of this part.

(a) This part provides rules directing and controlling the circumstances under which a coal mine operator shall fulfill his insurance obligations under the Act.

(b) This Subpart A sets forth the scope and purpose of this part and generally describes the statutory framework within which this part is operative.

(c) Subpart B of this part sets forth the criteria a coal mine operator must meet in order to qualify as a self-insurer.

(d) Subpart C of this part sets forth the rules and regulations of the Secretary governing contracts of insurance entered into by coal mine operators and commercial insurance sources for the payment of black lung benefits under part C of the Act.

(e) Subpart D of this part sets forth the rules governing the imposition of civil money penalties on coal mine operators that fail to secure their liability under the Act.

§ 726.3 Relationship of this part to other parts in this subchapter.

(a) This part 726 implements and effectuates responsibilities for the payment of black lung benefits placed upon coal mine operators by sections 415 and 422 of the Act and the regulations of the Secretary in this subchapter, particularly those set forth in part 725 of this subchapter. All definitions, usages, procedures, and other rules affecting the responsibilities of coal mine operators prescribed in part 725 of this subchapter are hereby made applicable, as appropriate, to this part 726.

(b) If the provisions of this part appear to conflict with any provision of any other part in this subchapter, the apparently conflicting provisions should be read harmoniously to the fullest extent possible. If a harmonious interpretation is not possible, the provisions of this part should be applied to govern the responsibilities and obligations of coal mine operators to secure the payment of black lung benefits as prescribed by the Act. The provisions of this part do not apply to matters falling outside the scope of this part.

§ 726.4 Who must obtain insurance coverage.

(a) Section 423 of part C of title IV of the Act requires each operator of a coal mine or former operator in any State which does meet the requirements prescribed by the Secretary pursuant to section 411 of part C of title IV of the Act to self-insure or obtain a policy or contract of insurance to guarantee the payment of benefits for which such operator may be adjudicated liable under section 422 of the Act. In enacting sections 422 and 423 of the Act Congress has unambiguously expressed its intent that coal mine operators bear the cost of providing the benefits established by part C of title IV of the Act. Section 3 of the Act defines an ''operator'' as any owner, lessee, or other person who operates, controls, or supervises a coal mine.

(b) Section 422(i) of the Act clearly recognizes that any individual or business entity who is or was a coal mine operator may be found liable for the payment of pneumoconiosis benefits after December 31, 1973. Within this framework it is clear that the Secretary has wide latitude for determining which operator shall be liable for the payment of part C benefits. Comprehensive standards have been promulgated in subpart G of part 725 of this subchapter for the purpose of guiding the Secretary in making such determination. It must be noted that pursuant to these standards any parent or subsidiary corporation, any individual or corporate partner, or partnership, any lessee or lessor of a coal mine, any joint venture or participant in a joint venture, any transferee or transferor of a corporation or other business entity, any former, current, or future operator or any other form of business entity which has had or will have a substantial and reasonably direct interest in the operation of a coal mine may be determined liable for the payment of pneumoconiosis benefits after December 31, 1973. The failure of any such business entity to self-insure or obtain a policy or contract of insurance shall in no way relieve such business entity of its obligation to pay pneumoconiosis benefits in respect of any case in which such business entity's responsibility for such payments has been properly adjudicated. Any business entity described in this section shall take appropriate steps to insure that any liability imposed by part C of the Act on such business entity shall be dischargeable.

§ 726.5 Effective date of insurance coverage.

Pursuant to section 422(c) of part C of title IV of the Act, no coal mine operator shall be responsible for the payment of any benefits whatsoever for any period prior to January 1, 1974. However, coal mine operators shall be liable as of January 1, 1974, for the payment of benefits in respect of claims which were filed under section 415 of part B of title IV of the Act after July 1, 1973. Section 415(a)(3) requires the Secretary to notify any operator who may be liable for the payment of benefits under part C of title IV beginning on January 1, 1974, of the pendency of a section 415 claim. Section 415(a)(5) declares that any operator who has been notified of the pendency of a section 415 claim shall be bound by the determination of the Secretary as to such operator's liability and as to the claimant's entitlement to benefits as if the claim were filed under part C of title IV of the Act and section 422 thereof had been applicable to such operator. Therefore, even though no benefit payments shall be required of an operator prior to January 1, 1974, the liability for these payments may be finally adjudicated at any time after July 1, 1973. Neither the failure of an operator to exercise his right to participate in the adjudication of such a claim nor the failure of an operator to obtain insurance coverage in respect of claims filed after June 30, 1973, but before January 1, 1974, shall excuse such operator from his liability for the payment of benefits to such claimants under part C of title IV of the Act.

§ 726.6 The Office of Workers' Compensation Programs.

The Office of Workers' Compensation Programs (hereinafter the Office or OWCP) is that subdivision of the Employment Standards Administration of the U.S. Department of Labor which has been empowered by the Secretary of Labor to carry out his functions under section 415 and part C of title IV of the Act. As noted throughout this part 726 the Office shall perform a number of functions with respect to the regulation of both the self-insurance and commercial insurance programs. All correspondence with or submissions to the Office should be addressed as follows:

Division of Coal Mine Workers' Compensation, Office of Workers' Compensation Programs, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210

§ 726.7 Forms, submission of information.

Any information required by this part 726 to be submitted to the Office of Workmen's Compensation Programs or any other office or official of the Department of Labor, shall be submitted on such forms or in such manner as the Secretary deems appropriate and has authorized from time to time for such purposes.

§ 726.8 Definitions.

In addition to the definitions provided in part 725 of this subchapter, the following definitions apply to this part:

(a) *Director* means the Director, Office of Workers' Compensation Programs, and includes any official of the Office of Workers' Compensation Programs authorized by the Director to perform any of the functions of the Director under this part and part 725 of this subchapter.

(b) *Person* includes any individual, partnership, corporation, association, business trust, legal representative, or organized group of persons.

(c) *Secretary* means the Secretary of Labor or such other official as the Secretary shall designate to carry out any responsibility under this part.

(d) The terms *employ* and *employment* shall be construed as broadly as possible, and shall include any relationship under which an operator retains the right to direct, control, or supervise the work performed by a miner, or any other relationship under which an operator derives a benefit from the work performed by a miner. Any individuals who participate with one or more persons in the mining of coal, such as owners, proprietors, partners, and joint venturers, whether they are compensated by wages, salaries, piece rates, shares, profits, or by any other means, shall be deemed employees. It is the specific intention of this paragraph to disregard any financial arrangement or business entity devised

by the actual owners or operators of a coal mine or coal mine-related enterprise to avoid the payment of benefits to miners who, based upon the economic reality of their relationship to this enterprise, are, in fact, employees of the enterprise.

Subpart B—Authorization of Self-Insurers

§ 726.101 Who may be authorized to self-insure.

(a) Pursuant to section 423 of part C of title IV of the Act, authorization to self-insure against liability incurred by coal mine operators on account of the total disability or death of miners due to pneumoconiosis may be granted or denied in the discretion of the Secretary. The provisions of this subpart describe the minimum requirements established by the Secretary for determining whether any particular coal mine operator shall be authorized as a self-insurer.

(b) The minimum requirements which must be met by any operator seeking authorization to self-insure are as follows:

(1) The operator must, at the time of application, have been in the business of mining coal for at least the 3 consecutive years prior to such application; and,

(2) The operator must demonstrate the administrative capacity to fully service such claims as may be filed against him; and,

(3) The operator's average current assets over the preceding 3 years (in computing average current assets such operator shall not include the amount of any negotiable securities which he may be required to deposit to secure his obligations under the Act) must exceed current liabilities by the sum of—

(i) The estimated aggregate amount of black lung benefits (including medical benefits) which such operator may expect to be required to pay during the ensuing year; and,

(ii) The annual premium cost for any indemnity bond purchased; and

(4) Such operator must obtain security, in a form approved by the Office (see § 726.104) and in an amount to be determined by the Office (see § 726.105); and

(5) No operator with fewer than 5 full-time employee-miners shall be permitted to self-insure.

(c) No operator who is unable to meet the requirements of this section should apply for authorization to self-insure and no application for self-insurance shall be approved by the Office until such time as the amount prescribed by the Office has been secured in accordance with this subpart.

§ 726.102 Application for authority to become a self-insurer; how filed; information to be submitted.

(a) *How filed.* Application for authority to become a self-insurer shall be addressed to the Office and be made on a form provided by the Office. Such application shall be signed by the applicant over his typewritten name and if the applicant is not an individual, by the principal officer of the applicant duly authorized to make such application over his typewritten name and official designation and shall be sworn to by him. If the applicant is a corporation, the corporate seal shall be affixed. The application shall be filed with the Office in Washington, D.C.

(b) *Information to be submitted.* Each application for authority to self-insure shall contain:

(1) A statement of the employer's payroll report for each of the preceding 3 years;

(2) A statement of the average number of employees engaged in employment within the purview of the Act for each of the preceding 3 years;

(3) A list of the mine or mines to be covered by any particular self-insurance agreement. Each such mine or mines listed shall be described by name and reference shall be made to the Federal Identification Number assigned such mine by the Bureau of Mines, U.S. Department of the Interior;

(4) A certified itemized statement of the gross and net assets and liabilities of the operator for each of the 3 preceding years in such manner as prescribed by the Office;

(5) A statement demonstrating the applicant's administrative capacity to provide or procure adequate servicing for a claim including both medical and dollar claims; and

(6) In addition to the aforementioned, the Office may in its discretion, require the applicant to submit such further information or such evidence as the Office may deem necessary to have in order to enable it to give adequate consideration to such application.

(c) *Who may file.* An application for authorization to self-insure may be filed by any parent or subsidiary corporation, partner or partnership, party to a joint venture or joint venture, individual, or other business entity which may be determined liable for the payment of black lung benefits under part C of title IV of the Act, regardless of whether such applicant is directly engaged in the business of mining coal. However, in each case for which authorization to self-insure is granted, the agreement and undertaking filed pursuant to § 726.110 and the security deposit shall be respectively filed by and deposited in the name of the applicant only.

§ 726.103 Application for authority to self-insure; effect of regulations contained in this part.

As appropriate, each of the regulations, interpretations and requirements contained in this part 726 including those described in subpart C of this part shall be binding upon each applicant under this subpart, and the applicant's consent to be bound by all requirements of the said regulations shall be deemed to be included in and a part of the application, as fully as though written therein.

§ 726.104 Action by the Office upon application of operator.

(a) Upon receipt of a completed application for authorization to self-insure, the Office shall, after examination of the information contained in the application, either deny the request or determine the amount of security which must be given by the applicant to guarantee the payment of benefits and the discharge of all other obligations which may be required of such applicant under the Act.

(b) The applicant shall thereafter be notified that he may give security in the amount fixed by the Office (see § 726.105):

(1) In the form of an indemnity bond with sureties satisfactory to the Office;

(2) By a deposit of negotiable securities with a Federal Reserve Bank in compliance with §§ 726.106(c) and 726.107;

(3) In the form of a letter of credit issued by a financial institution satisfactory to the Office (except that a letter of credit shall not be sufficient by itself to satisfy a self-insurer's obligations under this part); or

(4) By funding a trust pursuant to section 501(c)(21) of the Internal Revenue Code (26 U.S.C.).

(c) Any applicant who cannot meet the security deposit requirements imposed by the Office should proceed to obtain a commercial policy or contract of insurance. Any applicant for authorization to self-insure whose application has been rejected or who believes that the security deposit requirements imposed by the Office are excessive may, in writing, request that the Office review its determination. A request for review should contain such information as may be necessary to support the request that the amount of security required be reduced.

(d) Upon receipt of any such request, the Office shall review its previous determination in light of any new or additional information submitted and inform the applicant whether or not a reduction in the amount of security initially required is warranted.

§ 726.105 Fixing the amount of security.

The Office shall require the amount of security which it deems necessary and sufficient to secure the performance by the applicant of all obligations imposed upon him as an operator by the Act. In determining the amount of security required, the factors that the Office will consider include, but are not limited to, the operator's net worth, the existence of a guarantee by a parent corporation, and the operator's existing liability for benefits. The Office shall also consider such other factors as it considers relevant to any particular case. The amount of security which shall be required may be increased or decreased when experience or changed conditions so warrant.

§ 726.106 Type of security.

(a) The Office shall determine the type or types of security which an applicant shall or may procure. (See § 726.104(b).)

(b) In the event the indemnity bond option is selected, the bond shall be in such form and contain such provisions as the Office may prescribe: *Provided*, That only corporations may act as sureties on such indemnity bonds. In each case in which the surety on any such bond is a surety company, such company must be one approved by the U.S. Treasury Department under the laws of the United States and the applicable rules and regulations governing bonding companies (see Department of Treasury's Circular—570).

(c) An applicant for authorization to self-insure based on a deposit of negotiable securities, in the amount fixed by the Office, shall deposit any negotiable securities acceptable as security for the deposit of public moneys of the United States under regulations issued by the Secretary of the Treasury. (See 31 CFR part 225.) The approval, valuation, acceptance, and custody of such securities is hereby committed to the several Federal Reserve Banks and the Treasurer of the United States.

§ 726.107 Deposits of negotiable securities with Federal Reserve banks or the Treasurer of the United States; authority to sell such securities; interest thereon.

Deposits of securities provided for by the regulations in this part shall be made with any Federal Reserve bank or any branch of a Federal Reserve bank designated by the Office, or the Treasurer of the United States, and shall be held subject to the order of the Office with power in the Office, in its discretion in the event of default by the said self-insurer, to collect the interest as it may become due, to sell the securities or any of them as may be required to discharge the obligations of the self-insurer under the Act and to apply the proceeds to the payment of any benefits or medical expenses for which the self-insurer may be liable. The Office may, however, whenever it deems it unnecessary to resort to such securities for the payment of benefits, authorize the self-insurer to collect interest on the securities deposited by him.

§ 726.108 Withdrawal of negotiable securities.

No withdrawal of negotiable securities deposited by a self-insurer, shall be made except upon authorization by the Office. A self-insurer discontinuing business, or discontinuing operations within the purview of the Act, or providing security for the payment of benefits by commercial insurance under the provisions of the Act may apply to the Office for the withdrawal of securities deposited under the regulations in this part. With such application shall be filed a sworn statement setting forth:

(a) A list of all outstanding cases in which benefits are being paid, with the names of the miners and other beneficiaries, giving a statement of the amounts of benefits paid and the periods for which such benefits have been paid; and

(b) A similar list of all pending cases in which no benefits have as yet been paid. In such cases withdrawals may be authorized by the Office of such securities as in the opinion of the Office may not be necessary to provide adequate security for the payment of outstanding and potential liabilities of such self-insurer under the Act.

§ 726.109 Increase or reduction in the amount of security.

Whenever in the opinion of the Office the amount of security given by the self-insurer is insufficient to afford adequate security for the payment of benefits and medical expenses under the Act, the self-insurer shall, upon demand by the Office, file such additional security as the Office may require. The Office may reduce the amount of security at any time on its own initiative, or upon the application of a self-insurer, when it believes the facts warrant a reduction. A self-insurer seeking a reduction shall furnish such information as the Office may request relative to his current affairs, the nature and hazard of the work of his employees, the amount of the payroll of his employees engaged in coal mine employment within the purview of the Act, his

financial condition, and such other evidence as may be deemed material, including a record of benefit payments he has made.

§ 726.110 Filing of agreement and undertaking.

(a) In addition to the requirement that adequate security be procured as set forth in this subpart, the applicant for the authorization to self-insure shall, as a condition precedent to receiving such authorization, execute and file with the Office an agreement and undertaking in a form prescribed and provided by the Office in which the applicant shall agree:

(1) To pay when due, as required by the Act, all benefits payable on account of total disability or death of any of its employee-miners;

(2) To furnish medical, surgical, hospital, and other attendance, treatment, and care as required by the Act;

(3) To provide security in a form approved by the Office (see § 726.104) and in an amount established by the Office (see § 726.105), as elected in the application;

(4) To authorize the Office to sell any negotiable securities so deposited or any part thereof, and to pay from the proceeds thereof such benefits, medical, and other expenses and any accrued penalties imposed by law as the Office may find to be due and payable.

(b) When an applicant has provided the requisite security, he shall send to the Office in Washington, D.C. a completed agreement and undertaking, together with satisfactory proof that his obligations and liabilities under the Act have been secured.

§ 726.111 Notice of authorization to self-insure.

Upon receipt of a completed agreement and undertaking and satisfactory proof that adequate security has been provided, an applicant for authorization to self-insure shall be notified by the Office in writing that he is authorized to self-insure to meet the obligations imposed upon him by section 415 and part C of title IV of the Act.

§ 726.112 Reports required of self-insurer; examination of accounts of self-insurer.

(a) Each operator who has been authorized to self-insure under this part shall submit to the Office reports containing such information as the Office may from time to time require or prescribe.

(b) Whenever it deems it to be necessary, the Office may inspect or examine the books of account, records, and other papers of a self-insurer for the purpose of verifying any financial statement submitted to the Office by the self-insurer or verifying any information furnished to the Office in any report required by this section, or any other section of the regulations in this part, and such self-insurer shall permit the Office or its duly authorized representative to make such an inspection or examination as the Office shall require. In lieu of this requirement the Office may in its discretion accept an adequate report of a certified public accountant.

(c) Failure to submit or make available any report or information requested by the Office from an authorized self-insurer pursuant to this section may, in appropriate circumstances result in a revocation of the authorization to self-insure.

§ 726.113 Disclosure of confidential information.

Any financial information or records, or other information relating to the business of an authorized self-insurer or applicant for the authorization of self-insurance obtained by the Office shall be exempt from public disclosure to the extent provided in 5 U.S.C. 552(b) and the applicable regulations of the Department of Labor promulgated thereunder. (See 29 CFR part 70.)

§ 726.114 Period of authorization as self-insurer; reauthorization.

(a) No initial authorization to self-insure shall be granted for a period in excess of 18 months. A self-insurer who has made an adequate deposit of negotiable securities in compliance with §§ 726.106(c) and 726.107 will be reauthorized for the ensuing fiscal year without additional security if the Office finds that his experience as a self-insurer

warrants such action. If the Office determines that such self-insurer's experience indicates a need for the deposit of additional security, no reauthorization shall be issued for the ensuing fiscal year until the Office receives satisfactory proof that the requisite amount of additional securities has been deposited. A self-insurer who currently has on file an indemnity bond will receive from the Office each year a bond form for execution in contemplation of reauthorization, and the submission of such bond duly executed in the amount indicated by the Office will be deemed and treated as such self-insurer's application for reauthorization for the ensuing fiscal year.

(b) In each case for which there is an approved change in the amount of security provided, a new agreement and undertaking shall be executed.

(c) Each operator authorized to self-insure under this part shall apply for reauthorization for any period during which it engages in the operation of a coal mine and for additional periods after it ceases operating a coal mine. Upon application by the operator, accompanied by proof that the security it has posted is sufficient to secure all benefits potentially payable to miners formerly employed by the operator, the Office shall issue a certification that the operator is exempt from the requirements of this part based on its prior operation of a coal mine. The provisions of subpart D of this part shall be applicable to any operator that fails to apply for reauthorization in accordance with the provisions of this section.

§ 726.115 Revocation of authorization to self-insure.

The Office may for good cause shown suspend or revoke the authorization of any self-insurer. Failure by a self-insurer to comply with any provision or requirement of law or of the regulations in this part, or with any lawful order or communication of the Office, or the failure or insolvency of the surety on his indemnity bond, or impairment of financial responsibility of such self-insurer, may be deemed good cause for such suspension or revocation.

Subpart C—Insurance Contracts

§ 726.201 Insurance contracts—generally.

Each operator of a coal mine who has not obtained authorization as a self-insurer shall purchase a policy or enter into a contract with a commercial insurance carrier or State agency. Pursuant to authority contained in sections 422(a) and 423(b) and (c) of part C of title IV of the Act, this subpart describes a number of provisions which are required to be incorporated in a policy or contract of insurance obtained by a coal mine operator for the purpose of meeting the responsibility imposed upon such operator by the Act in respect of the total disability or death of miners due to pneumoconiosis.

§ 726.202 Who may underwrite an operator's liability.

Each coal mine operator who is not authorized to self-insure shall insure and keep insured the payment of benefits as required by the Act with any stock company or mutual company or association, or with any other person, or fund, including any State fund while such company, association, person, or fund is authorized under the law of any State to insure workmen's compensation.

§ 726.203 Federal Coal Mine Health and Safety Act endorsement.

(a) The following form of endorsement shall be attached and applicable to the standard workmen's compensation and employer's liability policy prepared by the National Council on Compensation Insurance affording coverage under the Federal Coal Mine Health and Safety Act of 1969, as amended:

It is agreed that: (1) With respect to operations in a State designated in item 3 of the declarations, the unqualified term ''workmen's compensation law'' includes part C of title IV of the Federal Coal Mine Health and Safety Act of 1969, 30 U.S.C. section 931–936, and any laws amendatory thereto, or supplementary thereto, which may be or become effective while this policy is in force, and definition (a) of Insuring Agreement III is amended accordingly; (2) with respect to such insurance as is afforded by this endorsement, (a) the States, if any, named below, shall be deemed to be designated in item 3 of

the declaration; (b) Insuring Agreement IV(2) is amended to read ''by disease caused or aggravated by exposure of which the last day of the last exposure, in the employment of the insured, to conditions causing the disease occurs during the policy period, or occurred prior to (effective date) and claim based on such disease is first filed against the insured during the policy period.''

(b) The term ''effective date'' as used in paragraph (a) of this section shall be construed to mean the effective date of the first policy or contract of insurance procured by an operator for purposes of meeting the obligations imposed on such operator by section 423 of part C of title IV of the Act.

(c) The Act contains a number of provisions and imposes a number of requirements on operators which differ in varying degrees from traditional workmen's compensation concepts. To avoid unnecessary administrative delays and expense which might be occasioned by the drafting of an entirely new standard workmen's compensation policy specially tailored to the Act, the Office has determined that the existing standard workmen's compensation policy subject to the endorsement provisions contained in paragraph (a) of this section shall be acceptable for purposes of writing commercial insurance coverage under the Act. However, to avoid undue disputes over the meaning of certain policy provisions and in accordance with the authority contained in section 423(b)(3) of the Act, the Office has determined that the following requirements shall be applicable to all commercial insurance policies obtained by an operator for the purpose of insuring any liability incurred pursuant to the Act:

(1) *Operator liability*. (i) Section 415 and part C of title IV of the Act provide coverage for total disability or death due to pneumoconiosis to all claimants who meet the eligibility requirements imposed by the Act. Section 422 of the Act and the regulations duly promulgated thereunder (part 725 of this subchapter) set forth the conditions under which a coal mine operator may be adjudicated liable for the payment of benefits to an eligible claimant for any period subsequent to December 31, 1973.

(ii) Section 422(c) of the Act prescribes that except as provided in 422(i) (see paragraph (c)(2) of this section) an operator may be adjudicated liable for the payment of benefits in any case if the total disability or death due to pneumoconiosis upon which the claim is predicated arose at least in part out of employment in a mine in any period during which it was operated by such operator. The Act does not require that such employment which contributed to or caused the total disability or death due to pneumoconiosis occur subsequent to any particular date in time. The Secretary in establishing a formula for determining the operator liable for the payment of benefits (see subpart D of part 725 of this subchapter) in respect of any particular claim, must therefore, within the framework and intent of title IV of the Act find in appropriate cases that an operator is liable for the payment of benefits for some period after December 31, 1973, even though the employment upon which an operator's liability is based occurred prior to July 1, 1973, or prior to the effective date of the Act or the effective date of any amendments thereto, or prior to the effective date of any policy or contract of insurance obtained by such operator. The endorsement provisions contained in paragraph (a) of this section shall be construed to incorporate these requirements in any policy or contract of insurance obtained by an operator to meet the obligations imposed on such operator by section 423 of the Act.

(2) *Successor liability*. Section 422(i) of part C of title IV of the Act requires that a coal mine operator who after December 30, 1969, acquired his mine or substantially all of the assets thereof from a person who was an operator of such mine on or after December 30, 1969, shall be liable for and shall secure the payment of benefits which would have been payable by the prior operator with respect to miners previously employed in such mine if the acquisition had not occurred and the prior operator had continued to operate such mine. In the case of an operator who is determined liable for the payment of benefits under section 422(i) of the Act and part 725 of this subchapter, such liability shall accrue to such operator regardless of the fact that the miner on whose total disability or death the

claim is predicated was never employed by such operator in any capacity. The endorsement provisions contained in paragraph (a) of this section shall be construed to incorporate this requirement in any policy or contract of insurance obtained by an operator to meet the obligations imposed on such operator by section 423 of the Act.

(3) *Medical eligibility*. Pursuant to section 422(h) of part C of title IV of the Act and the regulations described therein (see subpart D of part 410 of this title) benefits shall be paid to eligible claimants on account of total disability or death due to pneumoconiosis and in cases where the miner on whose death a claim is predicated was totally disabled by pneumoconiosis at the time of his death regardless of the cause of such death. The endorsement provisions contained in paragraph (a) of this section shall be construed to incorporate these requirements in any policy or contract of insurance obtained by an operator to meet the obligations imposed on such operator by section 423 of the Act.

(4) *Payment of benefits, rates*. Section 422(c) of the Act by incorporating section 412(a) of the Act requires the payment of benefits at a rate equal to 50 per centum of the minimum monthly payment to which a Federal employee in grade GS–2, who is totally disabled is entitled at the time of payment under Chapter 81 of title 5, United States Code. These benefits are augmented on account of eligible dependents as appropriate (see section 412(a) of part B of title IV of the Act). Since the dollar amount of benefits payable to any beneficiary is required to be computed at the time of payment such amounts may be expected to increase from time to time as changes in the GS–2 grade are enacted into law. The endorsement provisions contained in paragraph (a) of this section shall be construed to incorporate in any policy or contract of insurance obtained by an operator to meet the obligations imposed on such operator by section 423 of the Act, the requirement that the payment of benefits to eligible beneficiaries shall be made in such dollar amounts as are prescribed by section 412(a) of the Act computed at the time of payment.

(5) *Compromise and waiver of benefits*. Section 422(a) of part C of title IV of the Act by incorporating sections 15(b) and 16 of the Longshoremen's and Harbor Workers' Compensation Act (33 U.S.C. 915(b) and 916) prohibits the compromise and/or waiver of claims for benefits filed or benefits payable under section 415 and part C of title IV of the Act. The endorsement provisions contained in paragraph (a) of this section shall be construed to incorporate these prohibitions in any policy or contract of insurance obtained by an operator to meet the obligations imposed on such operator by section 423 of the Act.

(6) *Additional requirements*. In addition to the requirements described in paragraph (c)(1) through (5) of this section, the endorsement provisions contained in paragraph (a) of this section shall, to the fullest extent possible, be construed to bring any policy or contract of insurance entered into by an operator for the purpose of insuring such operator's liability under part C of title IV of the Act into conformity with the legal requirements placed upon such operator by section 415 and part C of title IV of the Act and parts 720 and 725 of this subchapter.

(d) Nothing in this section shall relieve any operator or carrier of the duty to comply with any State workmen's compensation law, except insofar as such State law is in conflict with the provisions of this section.

§ 726.204 Statutory policy provisions.

Pursuant to section 423(b) of part C of title IV of the Act each policy or contract of insurance obtained to comply with the requirements of section 423(a) of the Act must contain or shall be construed to contain—

(a) A provision to pay benefits required under section 422 of the Act, notwithstanding the provisions of the State workmen's compensation law which may provide for lesser payments; and,

(b) A provision that insolvency or bankruptcy of the operator or discharge therein (or both) shall not relieve the carrier from liability for such payments.

§ 726.205 Other forms of endorsement and policies.

Forms of endorsement or policies other than that described in § 726.203 may be entered into by operators to insure their liability under the Act. However, any form of endorsement or policy which materially alters or attempts to materially alter an operator's liability for the payment of any benefits under the Act shall be deemed insufficient to discharge such operator's duties and responsibilities as prescribed in part C of title IV of the Act. In any event, the failure of an operator to obtain an adequate policy or contract of insurance shall not affect such operator's liability for the payment of any benefits for which he is determined liable.

§ 726.206 Terms of policies.

A policy or contract of insurance shall be issued for the term of 1 year from the date that it becomes effective, but if such insurance be not needed except for a particular contract or operation, the term of the policy may be limited to the period of such contract or operation.

§ 726.207 Discharge by the carrier of obligations and duties of operator.

Every obligation and duty in respect of payment of benefits, the providing of medical and other treatment and care, the payment or furnishing of any other benefit required by the Act and in respect of the carrying out of the administrative procedure required or imposed by the Act or the regulations in this part or part 725 of this subchapter upon an operator shall be discharged and carried out by the carrier as appropriate. Notice to or knowledge of an operator of the occurrence of total disability or death due to pneumoconiosis shall be notice to or knowledge of such carrier. Jurisdiction of the operator by a district director, administrative law judge, the Office, or appropriate appellate authority under the Act shall be jurisdiction of such carrier. Any requirement under any benefits order, finding, or decision shall be binding upon such carrier in the same manner and to the same extent as upon the operator.

REPORTS BY CARRIER

§ 726.208 Report by carrier of issuance of policy or endorsement.

Each carrier shall report to the Office each policy and endorsement issued, canceled, or renewed by it to an operator. The report shall be made in such manner and on such form as the Office may require.

§ 726.209 Report; by whom sent.

The report of issuance, cancellation, or renewal of a policy and endorsement provided for in § 726.208 shall be sent by the home office of the carrier, except that any carrier may authorize its agency or agencies to make such reports to the Office.

§ 726.210 Agreement to be bound by report.

Every carrier seeking to write insurance under the provisions of the Act shall be deemed to have agreed that the acceptance by the Office of a report of the issuance or renewal of a policy of insurance, as provided for by § 726.208 shall bind the carrier to full liability for the obligations under the Act of the operator named in said report. It shall be no defense to this agreement that the carrier failed or delayed to issue, cancel, or renew the policy to the operator covered by this report.

§ 726.211 Name of one employer only shall be given in each report.

A separate report of the issuance or renewal of a policy and endorsement, provided for by § 726.208, shall be made for each operator covered by a policy. If a policy is issued or renewed insuring more than one operator, a separate report for each operator so covered shall be sent to the Office with the name of only one operator on each such report.

§ 726.212 Notice of cancellation.

Cancellation of a contract or policy of insurance issued under authority of the Act shall not become effective otherwise than as provided by 33 U.S.C. 936(b); and notice of a proposed cancellation shall be given to the Office and to the operator in accordance with the provisions of 33 U.S.C. 912(c), 30

days before such cancellation is intended to be effective (see section 422(a) of part C of title IV of the Act).

§ 726.213 Reports by carriers concerning the payment of benefits.

Pursuant to 33 U.S.C. 914(c) as incorporated by section 422(a) of part C of title IV of the Act and § 726.207 each carrier issuing a policy or contract of insurance under the Act shall upon making the first payment of benefits and upon the suspension of any payment in any case, immediately notify the Office in accordance with a form prescribed by the Office that payment of benefit has begun or has been suspended as the case may be. In addition, each such carrier shall at the request of the Office submit to the Office such additional information concerning policies or contracts of insurance issued to guarantee the payment of benefits under the Act and any benefits paid thereunder, as the Office may from time to time require to carry out its responsibilities under the Act.

Subpart D—Civil Money Penalties

§ 726.300 Purpose and scope.

Any operator which is required to secure the payment of benefits under section 423 of the Act and § 726.4 and which fails to secure such benefits, shall be subject to a civil penalty of not more than $1,000 for each day during which such failure occurs. If the operator is a corporation, the president, secretary, and treasurer of the operator shall also be severally liable for the penalty based on the operator's failure to secure the payment of benefits. This subpart defines those terms necessary for administration of the civil money penalty provisions, describes the criteria for determining the amount of penalty to be assessed, and sets forth applicable procedures for the assessment and contest of penalties.

§ 726.301 Definitions.

In addition to the definitions provided in part 725 of this subchapter and § 726.8, the following definitions apply to this subpart:

(a) *Division Director* means the Director, Division of Coal Mine Workers' Compensation, Office of Workers' Compensation Programs, Employment Standards Administration, or such other official authorized by the Division Director to perform any of the functions of the Division Director under this subpart.

(b) *President, secretary, or treasurer* means the officers of a corporation as designated pursuant to the laws and regulations of the state in which the corporation is incorporated or, if that state does not require the designation of such officers, the employees of a company who are performing the work usually performed by such officers in the state in which the corporation's principal place of business is located.

(c) *Principal* means any person who has an ownership interest in an operator that is not a corporation, and shall include, but is not limited to, partners, sole proprietors, and any other person who exercises control over the operation of a coal mine.

§ 726.302 Determination of penalty.

(a) The following method shall be used for determining the amount of any penalty assessed under this subpart.

(b) The penalty shall be determined by multiplying the daily base penalty amount or amounts, determined in accordance with the formula set forth in this section, by the number of days in the period during which the operator is subject to the security requirements of section 423 of the Act and § 726.4, and fails to secure its obligations under the Act. The period during which an operator is subject to liability for a penalty for failure to secure its obligations shall be deemed to commence on the first day on which the operator met the definition of the term ''operator'' as set forth in § 725.101 of this subchapter. The period shall be deemed to continue even where the operator has ceased coal mining and any related activity, unless the operator secured its liability for all previous periods through a policy or policies of insurance obtained in accordance with subpart C of this part or has obtained a certification of exemption in accordance with the provisions of § 726.114.

(c)(1) A daily base penalty amount shall be determined for all periods up to and including the 10th day after the

operator's receipt of the notification sent by the Director pursuant to § 726.303, during which the operator failed to secure its obligations under section 423 of the Act and § 726.4.

(2)(i) The daily base penalty amount shall be determined based on the number of persons employed in coal mine employment by the operator, or engaged in coal mine employment on behalf of the operator, on each day of the period defined by this section, and shall be computed as follows:

Employees	Penalty (per day)
Less than 25	$100
25–50	200
51–100	300
More than 100	400

(ii) For any period after the operator has ceased coal mining and any related activity, the daily penalty amount shall be computed based on the largest number of persons employed in coal mine employment by the operator, or engaged in coal mine employment on behalf of the operator, on any day while the operator was engaged in coal mining or any related activity. For purposes of this section, it shall be presumed, in the absence of evidence to the contrary, that any person employed by an operator is employed in coal mine employment.

(3) In any case in which the operator had prior notice of the applicability of the Black Lung Benefits Act to its operations, the daily base penalty amounts set forth in paragraph (c)(2)(i) of this section shall be doubled. Prior notice may be inferred where the operator, or an entity in which the operator or any of its principals had an ownership interest, or an entity in which the operator's president, secretary, or treasurer were employed:

(i) Previously complied with section 423 of the Act and § 726.4;

(ii) Was notified of its obligation to comply with section 423 of the Act and § 726.4; or

(iii) Was notified of its potential liability for a claim filed under the Black Lung Benefits Act pursuant to § 725.407 of this subchapter.

(4) Commencing with the 11th day after the operator's receipt of the notification sent by the Director pursuant to § 726.303, the daily base penalty amounts set forth in paragraph (c)(2)(i) shall be increased by $100.

(5) In any case in which the operator, or any of its principals, or an entity in which the operator's president, secretary, or treasurer were employed, has been the subject of a previous penalty assessment under this part, the daily base penalty amounts shall be increased by $300, up to a maximum daily base penalty amount of $1,000. The maximum daily base penalty amount applicable to any violation of § 726.4 that takes place after January 19, 2001 shall be $1,100.

(d) The penalty shall be subject to reduction for any period during which the operator had a reasonable belief that it was not required to comply with section 423 of the Act and § 726.4 or a reasonable belief that it had obtained insurance coverage to comply with section 423 of the Act and § 726.4. A notice of contest filed in accordance with § 726.307 shall not be sufficient to establish a reasonable belief that the operator was not required to comply with the Act and regulations.

§ 726.303 Notification; investigation.

(a) If the Director determines that an operator has violated the provisions of section 423 of the Act and § 726.4, he or she shall notify the operator of its violation and request that the operator immediately secure the payment of benefits. Such notice shall be sent by certified mail.

(b) The Director shall also direct the operator to supply information relevant to the assessment of a penalty. Such information, which shall be supplied within 30 days of the Director's request, may include:

(1) The date on which the operator commenced its operation of a coal mine;

(2) The number of persons employed by the operator since it began operating a coal mine and the dates of their employment; and

(3) The identity and last known address:

(i) In the case of a corporation, of all persons who served as president, secretary, and treasurer of the operator since it began operating a coal mine; or

(ii) In the case of an operator which is not incorporated, of all persons who were principals of the operator since it began operating a coal mine;

(c) In conducting any investigation of an operator under this subpart, the Division Director shall have all of the powers of a district director, as set forth at § 725.351(a) of this subchapter. For purposes of § 725.351(c), the Division Director shall be considered to sit in the District of Columbia.

§ 726.304 Notice of initial assessment.

(a) After an operator receives notification under § 726.303 and fails to secure its obligations for the period defined in § 726.302(b), and following the completion of any investigation, the Director may issue a notice of initial penalty assessment in accordance with the criteria set forth in § 726.302.

(b)(1) A copy of such notice shall be sent by certified mail to the operator. If the operator is a corporation, a copy shall also be sent by certified mail to each of the persons who served as president, secretary, or treasurer of the operator during any period in which the operator was in violation of section 423 of the Act and § 726.4.

(2) Where service by certified mail is not accepted by any person, the notice shall be deemed received by that person on the date of attempted delivery. Where service is not accepted, the Director may exercise discretion to serve the notice by regular mail.

§ 726.305 Contents of notice.

The notice required by § 726.304 shall:

(a) Identify the operator against whom the penalty is assessed, as well as the name of any other person severally liable for such penalty;

(b) Set forth the determination of the Director as to the amount of the penalty and the reason or reasons therefor;

(c) Set forth the right of each person identified in paragraph (a) of this section to contest the notice and request a hearing before the Office of Administrative Law Judges;

(d) Set forth the method for each person identified in paragraph (a) to contest the notice and request a hearing before the Office of Administrative Law Judges; and

(e) Inform any affected person that in the absence of a timely contest and request for hearing received within 30 days of the date of receipt of the notice, the Director's assessment will become final and unappealable as to that person.

§ 726.306 Finality of administrative assessment.

Except as provided in § 726.307(c), if any person identified as potentially liable for the assessment does not, within 30 days after receipt of notice, contest the assessment, the Director's assessment shall be deemed final as to that person, and collection and recovery of the penalty may be instituted pursuant to § 726.320.

§ 726.307 Form of notice of contest and request for hearing.

(a) Any person desiring to contest the Director's notice of initial assessment shall request an administrative hearing pursuant to this part. The notice of contest shall be made in writing to the Director, Division of Coal Mine Workers' Compensation, Office of Workers' Compensation Programs, Employment Standards Administration, United States Department of Labor. The notice of contest must be received no later than 30 days after the date of receipt of the notice issued under § 726.304. No additional time shall be added where service of the notice is made by mail.

(b) The notice of contest shall:

(1) Be dated;

(2) Be typewritten or legibly written;

(3) State the specific issues to be contested. In particular, the person must indicate his agreement or disagreement with:

(i) The Director's determination that the person against whom the penalty is assessed is an operator subject to the requirements of section 423 of the Act and § 726.4, or is the president, secretary, or treasurer of an operator, if the operator is a corporation.

(ii) The Director's determination that the operator violated section 423 of the Act and § 726.4 for the time period in question; and

(iii) The Director's determination of the amount of penalty owed;

(4) Be signed by the person making the request or an authorized representative of such person; and

(5) Include the address at which such person or authorized representative desires to receive further communications relating thereto.

(c) A notice of contest filed by the operator shall be deemed a notice of contest on behalf of all other persons to the Director's determinations that the operator is subject to section 423 of the Act and § 726.4 and that the operator violated those provisions for the time period in question, and to the Director's determination of the amount of penalty owed. An operator may not contest the Director's determination that a person against whom the penalty is assessed is the president, secretary, or treasurer of the operator.

(d) Failure to specifically identify an issue as contested pursuant to paragraph (b)(3) of this section shall be deemed a waiver of the right to contest that issue.

§ 726.308 Service and computation of time.

(a) Service of documents under this part shall be made by delivery to the person, an officer of a corporation, or attorney of record, or by mailing the document to the last known address of the person, officer, or attorney. If service is made by mail, it shall be considered complete upon mailing. Unless otherwise provided in this subpart, service need not be made by certified mail. If service is made by delivery, it shall be considered complete upon actual receipt by the person, officer, or attorney; upon leaving it at the person's, officer's or attorney's office with a clerk or person in charge; upon leaving it at a conspicuous place in the office if no one is in charge; or by leaving it at the person's or attorney's residence.

(b) If a complaint has been filed pursuant to § 726.309, two copies of all documents filed in any administrative proceeding under this subpart shall be served on the attorneys for the Department of Labor. One copy shall be served on the Associate Solicitor, Black Lung Benefits Division, Room N–2117, Office of the Solicitor, U.S. Department of Labor, 200 Constitution Ave., NW., Washington, DC 20210, and one copy on the attorney representing the Department in the proceeding.

(c) The time allowed a party to file any response under this subpart shall be computed beginning with the day following the action requiring a response, and shall include the last day of the period, unless it is a Saturday, Sunday, or federally-observed holiday, *see* § 725.311 of Part 725 of this subchapter, in which case the time period shall include the next business day.

§ 726.309 Referral to the Office of Administrative Law Judges.

(a) Upon receipt of a timely notice of contest filed in accordance with § 726.307, the Director, by the Associate Solicitor for Black Lung Benefits or the Regional Solicitor for the Region in which the violation occurred, may file a complaint with the Office of Administrative Law Judges. The Director may, in the complaint, reduce the total penalty amount requested. A copy of the notice of initial assessment issued by the Director and all notices of contest filed in accordance with § 726.307 shall be attached. A notice of contest shall be given the effect of an answer to the complaint for purposes of the administrative proceeding, subject to any amendment that may be permitted under this subpart and 29 CFR part 18.

(b) A copy of the complaint and attachments thereto shall be served by counsel for the Director on the person who filed the notice of contest.

(c) The Director, by counsel, may withdraw a complaint filed under this section at any time prior to the date upon which the decision of the Department becomes final by filing a motion with the Office of Administrative Law Judges or the Secretary, as appropriate. If the Director makes such a motion prior to the date on which an administrative law judge renders a decision in accordance § 726.313, the dismissal shall be without prejudice to further assessment against the operator for the period in question.

§ 726.310 Appointment of Administrative Law Judge and notification of hearing date.

Upon receipt from the Director of a complaint filed pursuant to § 726.309,

the Chief Administrative Law Judge shall appoint an Administrative Law Judge to hear the case. The Administrative Law Judge shall notify all interested parties of the time and place of the hearing.

§ 726.311 Evidence.

(a) Except as specifically provided in this subpart, and to the extent they do not conflict with the provisions of this subpart, the Rules of Practice and Procedure for Administrative Hearings Before the Office of Administrative Law Judges established by the Secretary at 29 CFR part 18 shall apply to administrative proceedings under this subpart.

(b) Notwithstanding 29 CFR 18.1101(b)(2), subpart B of the Rules of Practice and Procedure for Administrative Hearings Before the Office of Administrative Law Judges shall apply to administrative proceedings under this part, except that documents contained in Department of Labor files and offered on behalf of the Director shall be admissible in proceedings under this subpart without regard to their compliance with the Rules of Practice and Procedure.

§ 726.312 Burdens of proof.

(a) The Director shall bear the burden of proving the existence of a violation, and the time period for which the violation occurred. To prove a violation, the Director must establish:

(1) That the person against whom the penalty is assessed is an operator, or is the president, secretary, or treasurer of an operator, if such operator is a corporation.

(2) That the operator violated section 423 of the Act and § 726.4. The filing of a complaint shall be considered *prima facie* evidence that the Director has searched the records maintained by OWCP and has determined that the operator was not authorized to self-insure its liability under the Act for the time period in question, and that no insurance carrier reported coverage of the operator for the time period in question.

(b) The Director need not produce further evidence in support of his burden of proof with respect to the issues set forth in paragraph (a) if no party contested them pursuant to § 726.307(b)(3).

(c) The Director shall bear the burden of proving the size of the operator as required by § 726.302, except that if the Director has requested the operator to supply information with respect to its size under § 726.303 and the operator has not fully complied with that request, it shall be presumed that the operator has more than 100 employees engaged in coal mine employment. The person or persons liable for the assessment shall thereafter bear the burden of proving the actual number of employees engaged in coal mine employment.

(d) The Director shall bear the burden of proving the operator's receipt of the notification required by § 726.303, the operator's prior notice of the applicability of the Black Lung Benefits Act to its operations, and the existence of any previous assessment against the operator, the operator's principals, or the operator's officers.

(e) The person or persons liable for an assessment shall bear the burden of proving the applicability of the mitigating factors listed in § 726.302(d).

§ 726.313 Decision and order of Administrative Law Judge.

(a) The Administrative Law Judge shall render a decision on the issues referred by the Director.

(b) The decision of the Administrative Law Judge shall be limited to determining, where such issues are properly before him or her:

(1) Whether the operator has violated section 423 of the Act and § 726.4;

(2) Whether other persons identified by the Director as potentially severally liable for the penalty were the president, treasurer, or secretary of the corporation during the time period in question; and

(3) The appropriateness of the penalty assessed by the Director in light of the factors set forth in § 726.302. The Administrative Law Judge shall not render determinations on the legality of a regulatory provision or the constitutionality of a statutory provision.

(c) The decision of the Administrative Law Judge shall include a statement of findings and conclusions, with reasons and bases therefor, upon each

material issue presented on the record. The decision shall also include an appropriate order which may affirm, reverse, or modify, in whole or in part, the determination of the Director.

(d) The Administrative Law Judge shall serve copies of the decision on each of the parties by certified mail.

(e) The decision of the Administrative Law Judge shall be deemed to have been issued on the date that it is rendered, and shall constitute the final order of the Secretary unless there is a request for reconsideration by the Administrative Law Judge pursuant to paragraph (f) of this section or a petition for review filed pursuant to § 726.314.

(f) Any party may request that the Administrative Law Judge reconsider his or her decision by filing a motion within 30 days of the date upon which the decision of the Administrative Law Judge is issued. A timely motion for reconsideration shall suspend the running of the time for any party to file a petition for review pursuant to § 726.314.

(g) Following issuance of the decision and order, the Chief Administrative Law Judge shall promptly forward the complete hearing record to the Director.

§ 726.314 Review by the Secretary.

(a) The Director or any party aggrieved by a decision of the Administrative Law Judge may petition the Secretary for review of the decision by filing a petition within 30 days of the date on which the decision was issued. Any other party may file a cross-petition for review within 15 days of its receipt of a petition for review or within 30 days of the date on which the decision was issued, whichever is later. Copies of any petition or cross-petition shall be served on all parties and on the Chief Administrative Law Judge.

(b) A petition filed by one party shall not affect the finality of the decision with respect to other parties.

(c) If any party files a timely motion for reconsideration, any petition for review, whether filed prior to or subsequent to the filing of the timely motion for reconsideration, shall be dismissed without prejudice as premature. The 30-day time limit for filing a petition for review by any party shall commence upon issuance of a decision on reconsideration.

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Any petition or cross-petition for review shall:

(a) Be dated;

(b) Be typewritten or legibly written;

(c) State the specific reason or reasons why the party petitioning for review believes the Administrative Law Judge's decision is in error;

(d) Be signed by the party filing the petition or an authorized representative of such party; and

(e) Attach copies of the Administrative Law Judge's decision and any other documents admitted into the record by the Administrative Law Judge which would assist the Secretary in determining whether review is warranted.

§ 726.316 Filing and service.

(a) *Filing*. All documents submitted to the Secretary shall be filed with the Secretary of Labor, U.S. Department of Labor, 200 Constitution Ave., N.W., Washington, DC 20210.

(b) *Number of copies*. An original and four copies of all documents shall be filed.

(c) *Computation of time for delivery by mail*. Documents are not deemed filed with the Secretary until actually received by the Secretary either on or before the due date. No additional time shall be added where service of a document requiring action within a prescribed time was made by mail.

(d) *Manner and proof of service*. A copy of each document filed with the Secretary shall be served upon all other parties involved in the proceeding. Service under this section shall be by personal delivery or by mail. Service by mail is deemed effected at the time of mailing to the last known address.

§ 726.317 Discretionary review.

(a) Following receipt of a timely petition for review, the Secretary shall determine whether the decision warrants review, and shall send a notice of such determination to the parties and the Chief Administrative Law Judge. If the Secretary declines to review the decision, the Administrative Law

Judge's decision shall be considered the final decision of the agency. The Secretary's determination to review a decision by an Administrative Law Judge under this subpart is solely within the discretion of the Secretary.

(b) The Secretary's notice shall specify:

(1) The issue or issues to be reviewed; and

(2) The schedule for submitting arguments, in the form of briefs or such other pleadings as the Secretary deems appropriate.

(c) Upon receipt of the Secretary's notice, the Director shall forward the record to the Secretary.

§ 726.318 Final decision of the Secretary.

The Secretary's review shall be based upon the hearing record. The findings of fact in the decision under review shall be conclusive if supported by substantial evidence in the record as a whole. The Secretary's review of conclusions of law shall be *de novo*. Upon review of the decision, the Secretary may affirm, reverse, modify, or vacate the decision, and may remand the case to the Office of Administrative Law Judges for further proceedings. The Secretary's final decision shall be served upon all parties and the Chief Administrative Law Judge, in person or by mail to the last known address.

§ 726.319 Retention of official record.

The official record of every completed administrative hearing held pursuant to this part shall be maintained and filed under the custody and control of the Director.

§ 726.320 Collection and recovery of penalty.

(a) When the determination of the amount of any civil money penalty provided for in this part becomes final, in accordance with the administrative assessment thereof, or pursuant to the decision and order of an Administrative Law Judge, or following the decision of the Secretary, the amount of the penalty as thus determined is immediately due and payable to the U.S. Department of Labor on behalf of the Black Lung Disability Trust Fund. The person against whom such penalty has been assessed or imposed shall promptly remit the amount thereof, as finally determined, to the Secretary by certified check or by money order, made payable to the order of U.S. Department of Labor, Black Lung Program. Such remittance shall be delivered or mailed to the Director.

(b) If such remittance is not received within 30 days after it becomes due and payable, it may be recovered in a civil action brought by the Secretary in any court of competent jurisdiction, in which litigation the Secretary shall be represented by the Solicitor of Labor.