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