

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  $\frac{1}{20}$  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  $\frac{1}{10}$  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.