

PART 37—SPECIFICATIONS FOR MEDICAL EXAMINATIONS OF UNDERGROUND COAL MINERS

Subpart—Chest Roentgenographic Examinations

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AUTHORITY: Sec. 203, 83 Stat. 763; 30 U.S.C. 343, unless otherwise noted.
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Subpart—Chest Roentgenographic Examinations

§ 37.1 Scope.

The provisions of this subpart set forth the specifications for giving, interpreting, classifying, and submitting chest roentgenograms required by section 203 of the act to be given to underground coal miners and new miners.

§ 37.2 Definitions.

Any term defined in the Federal Mine Safety and Health Act of 1977 and not defined below shall have the meaning given it in the act. As used in this subpart:

- (a) "Act" means the Federal Mine Safety and Health Act of 1977 (30 U.S.C. 801, et seq.).
- (b) "ALOSH" means the Appalachian Laboratory for Occupational Safety and Health, Box 4258, Morgantown, W. Va. 26504. Although the Division of Respiratory Disease Studies, National Institute for Occupational Safety and Health, has programmatic responsibility for the chest roentgenographic examination program, the Institute's facility in Morgantown—ALOSH—is used throughout this subpart in referring to the administration of the program.
- (c) "Chest roentgenogram" means a single posteroanterior roentgenographic projection or radiograph of the chest at full inspiration recorded on roentgenographic film.

(d) "Convenient time and place" with respect to the conduct of any examination under this subpart means that the examination must be given at a reasonable hour in the locality in which the miner resides or a location that is equally accessible to the miner. For example, examinations at the mine during, immediately preceding, or immediately following work and a "no appointment" examination at a medical facility in a community easily accessible to the residences of a majority of the miners working at the mine, shall be considered of equivalent convenience for purposes of this paragraph.

(e) "Institute" and "NIOSH" mean the National Institute for Occupational Safety and Health Center for Disease Control, Public Health Service, Department of Health and Human Services.

(f) "ILO-U/C Classification" means the classification of radiographs of the pneumoconioses devised in 1971 by an international committee of the International Labor Office and described in "Medical Radiography and Photography," volume 48, No. 3, December 1972. "ILO Classification" means the classification of radiographs of the pneumoconioses revised in 1980 by an international committee of the International Labor Office and described in "Medical Radiography and Photography," volume 57, No. 1, 1981, and in ILO publication 22 (revised 1980) from the ILO Occupational Safety and Health Series.

(g) "Miner" means any individual including any coal mine construction worker who is working in or at any underground coal mine, but does not include any surface worker who does not have direct contact with underground coal mining or with coal processing operations.

(h) "Operator" means any owner, lessee, or other person who operates, controls, or supervises an underground coal mine or any independent contractor performing services or construction at such mine.

(i) "Panel of 'B' Readers" means the U.S. Public Health Service Consultant Panel of "B" Readers, c/o ALOSH, P.O. Box 4258, Morgantown, W. Va. 26504.

(j) "Preemployment physical examination" means any medical examination which includes a chest roentgenographic examination given in accordance with the specifications of this subpart to a person not previously employed by the same operator or at the same mine for which that person is being considered for employment.

(k) "Secretary" means the Secretary of Health and Human Services and any other officer or employee of the Department of Health and Human Services to whom the authority involved may be delegated.

(l) "MSHA" means the Mine Safety and Health Administration, Department of Labor.

[43 FR 33715, Aug. 1, 1978, as amended at 49 FR 7563, Mar. 1, 1984]

§ 37.3 Chest roentgenograms required for miners.

(a) *Voluntary examinations.* Every operator shall provide to each miner who is employed in or at any of its underground coal mines and who was employed in underground coal mining prior to December 30, 1969, or who has completed the required examinations under § 37.3(b) an opportunity for a chest roentgenogram in accordance with this subpart:

(1) Following August 1, 1978 ALOSH will notify the operator of each underground coal mine of a period within which the operator may provide examinations to each miner employed at its coal mine. The period shall begin no sooner than the effective date of these regulations and end no later than a date specified by ALOSH separately for each coal mine. The termination date of the period will be approximately 5 years from the date of the first examination which was made on a miner employed by the operator in its coal mine under the former regulations of this subpart adopted July 27, 1973. Within the period specified by ALOSH for each mine, the operator may select a 6-month period within which to provide examinations in accordance with a plan approved under § 37.5.

EXAMPLE: ALOSH finds that between July 27, 1973, and March 31, 1975, the first roentgenogram for a miner who was employed at mine Y and who was employed in under-

ground coal mining prior to December 30, 1969, was made on January 1, 1974. ALOSH will notify the operator of mine Y that the operator may select and designate on its plan a 6-month period within which to offer its examinations to its miners employed at mine Y. The 6-month period shall be scheduled between August 1, 1978 and January 1, 1979 (5 years after January 1, 1974).

(2) For all future voluntary examinations, ALOSH will notify the operator of each underground coal mine when sufficient time has elapsed since the end of the previous 6-month period of examinations. ALOSH will specify to the operator of each mine a period within which the operator may provide examinations to its miners employed at its coal mine. The period shall begin no sooner than 3½ years and end no later than 4½ years subsequent to the ending date of the previous 6-month period specified for a coal mine either by the operator on an approved plan or by ALOSH if the operator did not submit an approved plan. Within the period specified by ALOSH for each mine, the operator may select a 6-month period within which to provide examinations in accordance with a plan approved under § 37.5.

EXAMPLE: ALOSH finds that examinations were previously provided to miners employed at mine Y in a 6-month period from July 1, 1979, to December 31, 1979. ALOSH notifies the operator at least 3 months before July 1, 1983 (3½ years after December 31, 1979) that the operator may select and designate on its plan the next 6-month period within which to offer examinations to its miners employed at mine Y. The 6-month period shall be scheduled between July 1, 1983, and July 1, 1984 (between 3½ and 4½ years after December 31, 1979).

(3) Within either the next or future period(s) specified by ALOSH to the operator for each of its coal mines, the operator of the coal mine may select a different 6-month period for each of its mines within which to offer examinations. In the event the operator does not submit an approved plan, ALOSH will specify a 6-month period to the operator within which miners shall have the opportunity for examinations.

(b) *Mandatory examinations.* Every operator shall provide to each miner who begins working in or at a coal

mine for the first time after December 30, 1969:

- (1) An initial chest roentgenogram as soon as possible, but in no event later than 3 months after commencement of employment. A preemployment physical examination which was made within the 6 months prior to the date on which the miner started to work will be considered as fulfilling this requirement. An initial chest roentgenogram given to a miner according to former regulations for this subpart prior to August 1, 1978 will also be considered as fulfilling this requirement.
- (2) A second chest roentgenogram, in accordance with this subpart, 3 years following the initial examination if the miner is still engaged in underground coal mining. A second roentgenogram given to a miner according to former regulations under this subpart prior to August 1, 1978 will be considered as fulfilling this requirement.
- (3) A third chest roentgenogram 2 years following the second chest roentgenogram if the miner is still engaged in underground coal mining and if the second roentgenogram shows evidence of category 1, category 2, category 3 simple pneumoconioses, or complicated pneumoconioses (ILO Classification).

(c) ALOSH will notify the miner when he or she is due to receive the second or third mandatory examination under (b) of this section. Similarly, ALOSH will notify the coal mine operator when the miner is to be given a second examination. The operator will be notified concerning a miner's third examination only with the miner's written consent, and the notice to the operator shall not state the medical reason for the examination nor that it is the third examination in the series. If the miner is notified by ALOSH that the third mandatory examination is due and the operator is not so notified, availability of the roentgenographic examination under the operator's plan shall constitute the operator's compliance with the requirement to provide a third mandatory examination even if the miner refuses to take the examination.

(d) The opportunity for chest roentgenograms to be available by an operator for purposes of this subpart shall be provided in accordance with a plan which has been submitted and approved in accordance with this subpart.

(e) Any examinations conducted by the Secretary in the National Study of Coal Workers' Pneumoconiosis after January 1, 1977, but before August 1, 1978 shall satisfy the requirements of this section with respect to the specific examination given (see § 37.6(d)).

[43 FR 33715, Aug. 1, 1978; 43 FR 38830, Aug. 31, 1978, as amended at 49 FR 7563, Mar. 1, 1984]

§ 37.4 Plans for chest roentgenographic examinations.

(a) Every plan for chest roentgenographic examinations of miners shall be submitted on forms prescribed by the Secretary to ALOSH within 120 calendar days after August 1, 1978. In the case of a person who after August 1, 1978, becomes an operator of a mine for which no plan has been approved, that person shall submit a plan within 60 days after such event occurs. A separate plan shall be submitted by the operator and by each construction contractor for each underground coal mine which has a MSHA identification number. The plan shall include:

- (1) The name, address, and telephone number of the operator(s) submitting the plan;
- (2) The name, MSHA identification number for respirable dust measurements, and address of the mine included in the plan;
- (3) The proposed beginning and ending date of the 6-month period for voluntary examinations (see § 37.3(a)) and the estimated number of miners to be given or offered examinations during the 6-month period under the plan;
- (4) The name and location of the approved X-ray facility or facilities, and the approximate date(s) and time(s) of day during which the roentgenograms will be given to miners to enable a determination of whether the examinations will be conducted at a convenient time and place;

(5) If a mobile facility is proposed, the plan shall provide that each miner be given adequate notice of the opportunity to have the examination and that no miner shall have to wait for an examination more than 1 hour before or after his or her work shift. In addition, the plan shall include:

(i) The number of change houses at the mine.

(ii) One or more alternate nonmobile approved facilities for the reexamination of miners and for the mandatory examination of miners when necessary (see § 37.3(b)), or an assurance that the mobile facility will return to the location(s) specified in the plan as frequently as necessary to provide for examinations in accordance with these regulations.

(iii) The name and location of each change house at which examinations will be given. For mines with more than one change house, the examinations shall be given at each change house or at a change house located at a convenient place for each miner.

(6) The name and address of the "A" or "B" reader who will interpret and classify the chest roentgenograms.

(7) Assurances that: (i) The operator will not solicit a physician's roentgenographic or other findings concerning any miner employed by the operator,

(ii) Instructions have been given to the person(s) giving the examinations that duplicate roentgenograms or copies of roentgenograms will not be made and that (except as may be necessary for the purpose of this subpart) the physician's roentgenographic and other findings, as well as the occupational history information obtained from a miner unless obtained prior to employment in a preemployment examination, and disclosed prior to employment, will not be disclosed in a manner which will permit identification of the employee with the information about him, and

(iii) The roentgenographic examinations will be made at no charge to the miner.

(b) Operators may provide for alternate facilities and "A" or "B" readers in plans submitted for approval.

(c) The change of operators of any mine operating under a plan approved pursuant to § 37.5 shall not affect the

plan of the operator which has transferred responsibility for the mine. Every plan shall be subject to revision in accordance with paragraph (d) of this section.

(d) The operator shall advise ALOSH of any change in its plan. Each change in an approved plan is subject to the same review and approval as the originally approved plan.

(e) The operator shall promptly display in a visible location on the bulletin board at the mine its proposed plan or proposed change in plan when it is submitted to ALOSH. The proposed plan or change in plan shall remain posted in a visible location on the bulletin board until ALOSH either grants or denies approval of it at which time the approved plan or denial of approval shall be permanently posted. In the case of an operator who is a construction contractor and who does not have a bulletin board, the construction contractor must otherwise notify its employees of the examination arrangements. Upon request, the contractor must show ALOSH written evidence that its employees have been notified.

(f) Upon notification from ALOSH that sufficient time has elapsed since the previous period of examinations, the operator will resubmit its plan for each of its coal mines to ALOSH for approval for the next period of examinations (see § 37.3(a)(2)). The plan shall include the proposed beginning and ending dates of the next period of examinations and all information required by paragraph (a) of this section.

[43 FR 33715, Aug. 1, 1978; 43 FR 38830, Aug. 31, 1978]

§ 37.5 Approval of plans.

(a) Approval of plans granted prior to August 1, 1978 is no longer effective.

(b) If, after review of any plan submitted pursuant to this subpart, the Secretary determines that the action to be taken under the plan by the operator meets the specifications of this subpart and will effectively achieve its purpose, the Secretary will approve the plan and notify the operator(s) submitting the plan of the approval.

Approval may be conditioned upon such terms as the Secretary deems necessary to carry out the purpose of section 203 of the act.

(c) Where the Secretary has reason to believe that he will deny approval of a plan he will, prior to the denial, give reasonable notice in writing to the operator(s) of an opportunity to amend the plan. The notice shall specify the ground upon which approval is proposed to be denied.

(d) If a plan is denied approval, the Secretary shall advise the operator(s) in writing of the reasons for the denial.

§ 37.6 Chest roentgenographic examinations conducted by the Secretary.

(a) The Secretary will give chest roentgenograms or make arrangements with an appropriate person, agency, or institution to give the chest roentgenograms and with "A" or "B" readers to interpret the roentgenograms required under this subpart in the locality where the miner resides, at the mine, or at a medical facility easily accessible to a mining community or mining communities, under the following circumstances:

(1) Where, in the judgment of the Secretary, due to the lack of adequate medical or other necessary facilities or personnel at the mine or in the locality where the miner resides, the required roentgenographic examination cannot be given.

(2) Where the operator has not submitted an approvable plan.

(3) Where, after commencement of an operator's program pursuant to an approved plan and after notice to the operator of his failure to follow the approved plan and, after allowing 15 calendar days to bring the program into compliance, the Secretary determines and notifies the operator in writing that the operator's program still fails to comply with the approved plan.

(b) The operator of the mine shall reimburse the Secretary or other person, agency, or institution as the Secretary may direct, for the cost of conducting each examination made in accordance with this section.

(c) All examinations given or arranged by the Secretary will comply

with the time requirements of § 37.3. Whenever the Secretary gives or arranges for the examinations of miners at a time, a written notice of the arrangements will be sent to the operator who shall post the notice on the mine bulletin board.

(d) Operators of mines selected by ALOSH to participate in the National Study of Coal Workers' Pneumoconiosis (an epidemiological study of respiratory diseases in coal miners) and who agree to cooperate will have all their miners afforded the opportunity to have a chest roentgenogram required hereunder at no cost to the operator. For future examinations and for mandatory examinations each participating operator shall submit an approvable plan.

§ 37.7 Transfer of affected miner to less dusty area.

(a) Any miner who, in the judgment of the Secretary based upon the interpretation of one or more of the miner's chest roentgenograms, shows category 1 (1/0, 1/1, 1/2), category 2 (2/1, 2/2, 2/3), or category 3 (3/2, 3/3, 3/4) simple pneumoconiosis, or complicated pneumoconiosis (ILO Classification) shall be afforded the option of transferring from his or her position to another position in an area of the mine where the concentration of respirable dust in the mine atmosphere is not more than 1.0 mg/m³ of air, or in such level is not attainable in the mine, to a position in the mine where the concentration of respirable dust is the lowest attainable below 2.0 mg/m³ of air.

(b) Any transfer under this section shall be in accordance with the procedures specified in Part 90 of Title 30, Code of Federal Regulations.

143 FR 33715, Aug. 1, 1978; 43 FR 38830, Aug. 31, 1978, as amended at 44 FR 23085, Apr. 18, 1979; 49 FR 7563, Mar. 1, 1984

§ 37.8 Roentgenographic examination at miner's expense.

Any miner who wishes to obtain an examination at his or her own expense at an approved facility and to have submitted to NIOSH for him or her a complete examination may do so, provided that the examination is made no

sooner than 6 months after the most recent examination of the miner submitted to ALOSH. ALOSH will provide an interpretation and report of the examinations made at the miner's expense in the same manner as if it were submitted under an operator's plan. Any change in the miner's transfer rights under the act which may result from this examination will be subject to the terms of § 37.7.

§ 37.20 Miner identification document.

As part of the roentgenographic examination, a miner identification document which includes an occupational history questionnaire shall be completed for each miner at the facility where the roentgenogram is made at the same time the chest roentgenogram required by this subpart is given.

SPECIFICATIONS FOR PERFORMING CHEST ROENTGENOGRAPHIC EXAMINATIONS

§ 37.40 General provisions.

(a) The chest roentgenographic examination shall be given at a convenient time and place.

(b) The chest roentgenographic examination consists of the chest roentgenogram, and a complete Roentgenographic Interpretation Form (Form CDC/NIOSH (M) 2.8), and miner identification document.

(c) A roentgenographic examination shall be made in a facility approved in accordance with § 37.42 by or under the supervision of a physician who regularly makes chest roentgenograms and who has demonstrated ability to make chest roentgenograms of a quality to best ascertain the presence of pneumoconiosis.

§ 37.41 Chest roentgenogram specifications.

(a) Every chest roentgenogram shall be a single posterolateral projection at full inspiration on a film being no less than 14 by 17 inches and no greater than 16 by 17 inches. 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 the projection shall include both

apices with minimum loss of the costophrenic angle.

(b) 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 facilities shall provide a clean gown. Facilities shall be heated to a comfortable temperature.

(c) 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).

(d) Except as provided in paragraph (e) of this section, roentgenograms shall be made with units having generators which comply with the following: (1) 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; (2) 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.

(e) 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 of 200 mA at 110 kVp, at 60 Hz.

(f) Capacitor discharge and field emission units may be used if the model of such units is approved by ALOSH for quality, performance, and safety. ALOSH will consider such units for approval when listed by a facility seeking approval under § 37.42 of this subpart.

(g) Roentgenograms shall be given only with equipment having a beam-limiting device which does not cause large unexposed boundaries. The beam limiting device shall provide rectangular collimation and shall be of the type described in part F of the suggested State Regulations for the control of radiation or (for beam limiting devices manufactured after August 1, 1974) of the type specified in 21 CFR 1020.31. The use of such a device shall be discernible from an examination of the roentgenogram.

(h) to insure high quality chest roentgenograms:

(1) The maximum exposure time shall not exceed 1/2 of a second except that with single phase units with a rating less than 300 mA at 125 kVp, and subjects with chests over 28 cm. posterior, the exposure may be increased to not more than 1/2 of a second;

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

(3) Medium speed film and medium speed intensifying screens are recommended. However, any film-screen combination, the rated "speed" of which is at least 100 and does not exceed 300, which produces roentgenograms with spatial resolution, contrast, latitude and quantum mottle similar to those of systems designated as "medium speed" may be employed;

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

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

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

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

(8) 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) A formal quality assurance program shall be established at each facility.

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

(2) 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.

(j) 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 immediately made. All substandard roentgenograms shall be clearly marked as rejected and promptly sent to ALOSH for disposal.

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

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

(m) Each roentgenogram made hereunder shall be permanently and legibly marked with the name and address or ALOSH approval number of the facility at which it is made, the social security number of the miner, and the date of the roentgenogram. No other identifying markings shall be recorded on the roentgenogram.

[43 FR 33715, Aug. 1, 1978, as amended at 52 FR 7866, Mar. 13, 1987]

§ 37.42 Approval of roentgenographic facilities.

(a) Approval of roentgenographic facilities given prior to January 1, 1976, shall terminate upon August 1, 1978 unless each of the following conditions have been met:

(1) The facility must verify that it still meets the requirements set forth in the regulations for the second round of roentgenographic examinations (38 FR 20076) and it has not changed equipment since it was approved by NIOSH.

(2) From July 27, 1973, to January 1, 1976, the facility submitted to ALOSH at least 50 roentgenograms which were interpreted by one or more "B" readers not employed by the facility who found no more than 5 percent of all the roentgenograms unreadable.

(b) Other facilities will be eligible to participate in this program when they demonstrate their ability to make high quality diagnostic chest roentgenograms by submitting to ALOSH six or more sample chest roentgenograms made and processed at the ap-

pliant facility and which are of acceptable quality to the Panel of "B" readers. Applicants shall also submit a roentgenogram of a plastic step-wedge object (available on loan from ALOSH) which was made and processed at the same time with the same technique as the roentgenograms submitted and processed at the facility for which approval is sought. At least one chest roentgenogram and one test object roentgenogram shall have been made with each unit to be used hereunder. All roentgenograms shall have been made within 15 calendar days prior to submission and shall be marked to identify the facility where each roentgenogram was made, the X-ray machine used, and the date each was made. The chest roentgenograms will be returned and may be the same roentgenograms submitted pursuant to § 37.51.

NOTE: The plastic step-wedge object is described in an article by E. Dale Trout and John P. Kelley appearing in "The American Journal of Roentgenology, Radium Therapy and Nuclear Medicine," Vol. 117, No. 4, April 1973.

(c) Each roentgenographic facility submitting chest roentgenograms for approval under this section shall complete and include an X-ray facility document describing each X-ray unit to be used to make chest roentgenograms under the act. The form shall include: (1) The date of the last radiation safety inspection by an appropriate licensing agency or, if no such agency exists, by a qualified expert as defined in NCRP Report No. 33 (see § 37.43); (2) the deficiencies found; (3) a statement that all the deficiencies have been corrected; and (4) the date of acquisition of the X-ray unit. To be acceptable, the radiation safety inspection shall have been made within 1 year preceding the date of application.

(d) Roentgenograms submitted with applications for approval under this section will be evaluated by the panel of "B" Readers or by a qualified radiological physicist or consultant. Applicants will be advised of any reasons for denial of approval.

(e) ALOSH or its representatives may make a physical inspection of the applicant's facility and any approved roentgenographic facility at any rea-

sonable time to determine if the requirements of this subpart are being met.

(f) ALOSH may require a facility periodically to resubmit roentgenograms of a plastic step-wedge object, sample roentgenograms, or a Roentgenographic Facility Document for quality control purposes. Approvals granted hereunder may be suspended or withdrawn by notice in writing when in the opinion of ALOSH the quality of roentgenograms or information submitted under this section warrants such action. A copy of a notice withdrawing approval will be sent to each operator who has listed the facility as its facility for giving chest roentgenograms and shall be displayed on the mine bulletin board adjacent to the operator's approved plan. The approved plan will be reevaluated by ALOSH in light of this change.

[43 FR 33715, Aug. 1, 1978; 43 FR 38830, Aug. 31, 1978]

§ 37.43 Protection against radiation emitted by roentgenographic equipment.

Except as otherwise specified in § 37.41, roentgenographic equipment, its use and the facilities (including mobile facilities) in which such equipment is used, shall conform to applicable State and Federal regulations (See 21 CFR Part 1000). Where no applicable regulations exist, roentgenographic equipment, its use and the facilities (including mobile facilities) in which such equipment is used shall conform to the recommendations of the National Council on Radiation Protection and Measurements in NCRP Report No. 33 "Medical X-ray and Gamma-Ray Protection for Energies up to 10 MeV—Equipment Design and Use" (issued February 1, 1968), in NCRP Report No. 48, "Medical Radiation Protection for Medical and Allied Health Personnel" (issued August 1, 1976), and in NCRP Report No. 49, "Structural Shielding Design and Evaluation for Medical Use of X-rays and Gamma Rays of up to 10 MeV" (issued September 15, 1976). These documents are hereby incorporated by reference and made a part of this subpart. These documents are available for examination at ALOSH,

944 Chestnut Ridge Road, Morgantown, W. Va. 26505, and at the National Institute for Occupational Safety and Health, 5600 Fishers Lane, Rockville, Md. 20857. Copies of NCRP Reports Nos. 33, 48, and 49 may be purchased for \$3, \$4.50, and \$3.50 each, respectively, from NCRP Publications, P.O. Box 30175, Washington, D.C. 20014.

SPECIFICATIONS FOR INTERPRETATION, CLASSIFICATION, AND SUBMISSION OF CHEST ROENTGENOGRAMS

§ 37.50 Interpreting and classifying chest roentgenograms.

(a) Chest roentgenograms shall be interpreted and classified in accordance with the ILO Classification system and recorded on a Roentgenographic Interpretation Form (Form CDC/NIOSH (M)2.8).

(b) Roentgenograms shall be interpreted and classified only by a physician who regularly reads chest roentgenograms and who has demonstrated proficiency in classifying the pneumoconioses in accordance with § 37.51.

(c) All interpreters, whenever interpreting chest roentgenograms made under the Act, shall have immediately available for reference a complete set of the ILO International Classification of Radiographs for Pneumoconioses, 1980.

NOTE: This set is available from the International Labor Office, 1750 New York Avenue, NW., Washington, D.C. 20006 (Phone: 202/376-2315).

(d) In all view boxes used for making interpretations:

(1) Fluorescent lamps shall be simultaneously replaced with new lamps at 6-month intervals;

(2) All the fluorescent lamps in a panel of boxes shall have identical manufacturer's ratings as to intensity and color;

(3) The glass, internal reflective surfaces, and the lamps shall be kept clean;

(4) The unit shall be so situated as to minimize front surface glare.

[43 FR 33715, Aug. 1, 1978, as amended at 49 FR 7564, Mar. 1, 1984]

§ 37.51 Proficiency in the use of systems for classifying the pneumoconioses.

(a) First or "A" readers:

(1) Approval as an "A" reader shall continue if established prior to (insert) effective date of these regulations.

(2) Physicians who desire to be "A" readers must demonstrate their proficiency in classifying the pneumoconioses by either:

(i) Submitting to ALOSH from the physician's files six sample chest roentgenograms which are considered properly classified by the Panel of "B" readers. The six roentgenograms shall consist of two without pneumoconiosis, two with simple pneumoconiosis, and two with complicated pneumoconiosis. The films will be returned to the physician. The interpretations shall be on the Roentgenographic Interpretation Form (Form CDC/NIOSH (M) 2.8) (These may be the same roentgenograms submitted pursuant to § 37.42), or:

(ii) Satisfactory completion, since June 11, 1970, of a course approved by ALOSH on the ILO or ILO-U/C Classification systems or the UICC/Cincinnati classification system. As used in this subparagraph, "UICC/Cincinnati classification" means the classification of the pneumoconioses devised in 1968 by a Working Committee of the International Union Against Cancer.

(b) Final or "B" readers:

(1) Approval as a "B" reader established prior to October 1, 1976, shall hereby be terminated.

(2) Proficiency in evaluating chest roentgenograms for roentgenographic quality and in the use of the ILO Classification for interpreting chest roentgenograms for pneumoconiosis and other diseases shall be demonstrated by those physicians who desire to be "B" readers by taking and passing a specially designed proficiency examination given on behalf of or by ALOSH at a time and place specified by ALOSH. Each physician must bring a complete set of the ILO standard reference radiographs when taking the examination. Physicians who qualify under this provision need not be qualified under paragraph (a) of this section.

(c) Physicians who wish to participate in the program shall make application on an Interpreting Physician Certification Document (Form CDC/NIOSH (M) 2.1.2).

[43 FR 33715, Aug. 1, 1978, as amended at 49 FR 7564, Mar. 1, 1984]

§ 37.52 Method of obtaining definitive interpretations.

(a) All chest roentgenograms which are first interpreted by an "A" or "B" reader will be submitted by ALOSH to a "B" reader qualified as described in § 37.51. If there is agreement between the two interpreters as defined in paragraph (b) of this section the result shall be considered final and reported to MSHA for transmittal to the miner. When in the opinion of ALOSH substantial agreement is lacking, ALOSH shall obtain additional interpretations from the Panel of "B" readers. If interpretations are obtained from two or more "B" readers, and if two or more are in agreement then the highest major category shall be reported.

(b) Two interpreters shall be considered to be in agreement when they both find either stage A, B, or C complicated pneumoconiosis, or their findings with regard to simple pneumoconiosis are both in the same major category, or (with one exception noted below) are within one minor category (ILO Classification 12-point scale) of each other. In the last situation, the higher of the two interpretations shall be reported. The only exception to the one minor category principle is a reading sequence of 0/1, 1/0, or 1/0, 0/1. When such a sequence occurs, it shall not be considered agreement, and a third (or more) interpretation shall be obtained until a consensus involving two or more readings in the same major category is obtained.

[43 FR 33715, Aug. 1, 1978, as amended at 49 FR 7564, Mar. 1, 1984; 52 FR 7866, Mar. 13, 1987]

§ 37.53 Notification of abnormal roentgenographic findings.

(a) Findings of, or findings suggesting, enlarged heart, tuberculosis, lung cancer, or any other significant abnormal findings other than pneumoconio-

sis shall be communicated by the first physician to interpret and classify the roentgenogram to the designated physician of the miner indicated on the miner's identification document. A copy of the communication shall be submitted to ALOSH. ALOSH will notify the miner to contact his or her physician when any physician who interprets and classifies the miner's roentgenogram reports significant abnormal findings other than pneumoconiosis.

(b) In addition, when ALOSH has more than one roentgenogram of a miner in its files and the most recent examination was interpreted to show enlarged heart, tuberculosis, cancer, complicated pneumoconiosis, and any other significant abnormal findings, ALOSH will submit all of the miner's roentgenograms in its files with their respective interpretations to a "B" reader. The "B" reader will report any significant changes or progression of disease or other comments to ALOSH and ALOSH shall submit a copy of the report to the miner's designated physician.

(c) All final findings regarding pneumoconiosis will be sent to the miner by MSHA in accordance with section 203 of the act (see 30 CFR Part 90). Positive findings with regard to pneumoconiosis will be reported to the miner's designated physician by ALOSH.

(d) ALOSH will make every reasonable effort to process the findings described in paragraph (c) of this section within 60 days of receipt of the information described in § 37.60 in a complete and acceptable form. The information forwarded to MSHA will be in a form intended to facilitate prompt dispatch of the findings to the miner. The results of an examination made of a miner will not be processed by ALOSH if the examination was made within 6 months of the date of a previous acceptable examination.

§ 37.60 Submitting required chest roentgenograms and miner identification documents.

(a) Each chest roentgenogram required to be made under this subpart, together with the completed roentgenographic interpretation form and the

completed miner identification document, shall be submitted together for each miner to ALOSH within 14 calendar days after the roentgenographic examination is given and become the property of ALOSH.

(b) If ALOSH deems any part submitted under paragraph (a) of this section inadequate, it will notify the operator of the deficiency. The operator shall promptly make appropriate arrangements for the necessary reexamination.

(c) Failure to comply with paragraph (a) or (b) of this section shall be cause to revoke approval of a plan or any other approval as may be appropriate. An approval which has been revoked may be reinstated at the discretion of ALOSH after it receives satisfactory assurances and evidence that all deficiencies have been corrected and that effective controls have been instituted to prevent a recurrence.

(d) Chest roentgenograms and other required documents shall be submitted only for miners. Results of preemployment physical examinations of persons who are not hired shall not be submitted.

(e) If a miner refuses to participate in all phases of the examination prescribed in this subpart, no report need be made. If a miner refuses to participate in any phase of the examination prescribed in this subpart, all the forms shall be submitted with his or her name and social security account number on each. If any of the forms cannot be completed because of the miner's refusal, it shall be marked "Miner Refuses," and shall be submitted. No submission shall be made, however, without a completed miner identification document containing the miner's name, address, social security number and place of employment.

REVIEW AND AVAILABILITY OF RECORDS

§ 37.70 Review of interpretations.

(a) Any miner who believes the interpretation for pneumoconiosis reported to him or her by MSHA is in error may file a written request with ALOSH that his or her roentgenogram be reevaluated. If the interpretation was based on agreement between an "A" reader and a "B" reader, ALOSH

will obtain one or more additional interpretations by "B" readers as necessary to obtain agreement in accord with § 37.52(b), and MSHA shall report the results to the miner together with any rights which may accrue to the miner in accordance with § 37.7. If the reported interpretation was based on agreement between two (or more) "B" readers, the reading will be accepted as conclusive and the miner shall be so informed by MSHA.

(b) Any operator who is directed by MSHA to transfer a miner to a less dusty atmosphere based on the most recent examination made subsequent to August 1, 1978, may file a written request with ALOSH to review its findings. The standards set forth in paragraph (a) of this section apply and the operator and miner will be notified by MSHA whether the miner is entitled to the option to transfer.

§ 37.80 Availability of records.

(a) Medical information and roentgenograms on miners will be released by ALOSH only with the written consent from the miner, or if the miner is deceased, written consent from the miner's widow, next of kin, or legal representative.

(b) To the extent authorized, roentgenograms will be made available for examination only at ALOSH.

Subpart—Autopsies

AUTHORITY: Sec. 508, 83 Stat. 803; 30 U.S.C. 957.

SOURCE: 36 FR 8870, May 14, 1971, unless otherwise noted.

§ 37.200 Scope.

The provisions of this subpart set forth the conditions under which the Secretary will pay pathologists to obtain results of autopsies performed by them on miners.

§ 37.201 Definitions.

As used in this subpart:

- (a) "Secretary" means the Secretary of Health and Human Services.
- (b) "Miner" means any individual who during his life was employed in any underground coal mine.
- (c) "Pathologist" means

(1) A physician certified in anatomic pathology or pathology by the American Board of Pathology or the American Osteopathic Board of Pathology.

(2) A physician who possesses qualifications which are considered "Board of eligible" by the American Board of Pathology or American Osteopathic Board of Pathology, or

(3) An intern, resident, or other physician in a training program in pathology who performs the autopsy under the supervision of a pathologist as defined in paragraph (c) (1) or (2) of this section.

(d) "ALOSH" means the Appalachian Laboratory for Occupational Safety and Health, Public Health Service, Department of Health and Human Services, Post Office Box 4258, Morgantown, WV 26504.

§ 37.202 Payment for autopsy.

(a) The Secretary will pay up to \$200 to any pathologist who, after the effective date of the regulations in this part and with legal consent.

(1) Performs an autopsy on a miner in accordance with this subpart; and

(2) Submits the findings and other materials to ALOSH in accordance with this subpart within 180 calendar days after having performed the autopsy; and

(3) Receives no other specific payment, fee, or reimbursement in connection with the autopsy from the miner's widow, his family, his estate, or any other Federal agency.

(b) The Secretary will pay to any pathologist entitled to payment under paragraph (a) of this section and additional \$10 if the pathologist can obtain and submits a good quality copy or original of a chest roentgenogram (posteroanterior view) made of the subject of the autopsy within 5 years prior to his death together with a copy of any interpretation made.

135 FR 13206, Aug. 19, 1970, as amended at 38 FR 16353, June 22, 1973

§ 37.203 Autopsy specifications.

(a) Every autopsy for which a claim for payment is submitted pursuant to this part:

(1) Shall be performed consistent with standard autopsy procedures such as those, for example, set forth

in the "Autopsy Manual" prepared by the Armed Forces Institute of Pathology, July 1, 1960. (Technical Manual No. 8-300, NAVMED P-5065, Air Force Manual No. 160-19.) Copies of this document may be borrowed from ALOSH.

(2) Shall include:

(i) Gross and microscopic examination of the lungs, pulmonary pleura, and tracheobronchial lymph nodes;

(ii) Weights of the heart and each lung (these and all other measurements required under this subparagraph shall be in the metric system);

(iii) Circumference of each cardiac valve when opened;

(iv) Thickness of right and left ventricles; these measurements shall be made perpendicular to the ventricular surface and shall not include trabeculations or pericardial fat. The right ventricle shall be measured at a point midway between the tricuspid valve and the apex, and the left ventricle shall be measured directly above the insertion of the anterior papillary muscle;

(v) Size, number, consistency, location, description and other relevant details of all lesions of the lungs;

(vi) Level of the diaphragm;

(vii) From each type of suspected pneumoconiotic lesion, representative microscopic slides stained with hematoxylin eosin or other appropriate stain, and one formalin fixed, paraffin-impregnated block of tissue; a minimum of three stained slides and three blocks of tissue shall be submitted. When no such lesion is recognized, similar material shall be submitted from three separate areas of the lungs selected at random; a minimum of three stained slides and three formalin fixed, paraffin-impregnated blocks of tissue shall be submitted.

(b) Needle biopsy techniques shall not be used.

§ 37.204 Procedure for obtaining payment.

Every claim for payment under this subpart shall be submitted to ALOSH and shall include:

(a) An invoice (in duplicate) on the pathologist's letterhead or billhead indicating the date of autopsy, the amount of the claim and a signed

statement that the pathologist is not receiving any other specific compensation for the autopsy from the miner's widow, his surviving next-of-kin, the estate of the miner, or any other source.

(b) Completed PHS Consent, Release and History Form (See Fig. 1). This form may be completed with the assistance of the pathologist, attending physician, family physician, or any other responsible person who can provide reliable information.

(c) Report of autopsy:

(1) The information, slides, and blocks of tissue required by this subpart.

(2) Clinical abstract of terminal illness and other data that the pathologist determines is relevant.

(3) Final summary, including final anatomical diagnoses, indicating presence or absence of simple and complicated pneumoconiosis, and correlation with clinical history if indicated.

FIGURE 1

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

PUBLIC HEALTH SERVICE—NATIONAL COAL WORKERS' AUTOPSY STUDY

Consent, Release, and History Form Federal Coal Mine Health and Safety Act of 1969

I, _____, (Name) (Relationship) of _____, (Name of deceased miner) do hereby authorize the performance of _____ of an autopsy (_____) (Limitation, if any, on autopsy) on said deceased. I understand that the report and certain tissues as necessary will be released to the United States Public Health Service and to _____ (Name of Physician securing autopsy)

I understand that any claims in regard to the deceased for which I may sign a general release of medical information will result in the release of the information from the Public Health Service. I further understand that I shall not make any payment for the autopsy.

Occupational and Medical History

1. Date of Birth of Deceased _____ (Month, Day, Year)
2. Social Security Number of Deceased _____
3. Date and Place of Death _____ (Month, Day, Year) _____ (City, County, State).
4. Place of Last Mining Employment:

Name of Mine _____
 Name of Mining Company _____
 Mine Address _____
 5. Last Job Title at Mine of Last Employment _____
 (e.g., Continuous Miner Operator, motor-man, foreman, etc.)

6. Job Title of Principal Mining Occupation (that job to which miner devoted the most number of years) _____
 (e.g., Same as above)

7. Smoking History of Miner: _____
 (a) Did he ever smoke cigarettes? Yes _____
 No _____

(b) If yes, for how many years? _____
 Years _____

(c) If yes, how many cigarettes per day did he smoke on the average? _____ (Number of Cigarettes per day)

(d) Did he smoke cigarettes up until the time of his death? Yes _____ No _____

(e) If no to (d), for how long before he died had he not been smoking cigarettes? _____

8. Total Years in Surface and Underground Employment in Coal Mining, by State (If known) _____, (Years) _____ (State).

9. Total Years in Underground Coal Mining Employment, by State (If known) _____, (Years) _____ (State).

 (Signature)

 (Address)

 (Date)

Interviewer: _____

PART 38—DISASTER ASSISTANCE FOR CRISIS COUNSELING AND TRAINING

- Sec. 38.1 Purpose; coordination.
- 38.2 Definitions.
- 38.3 Assistance; procedures, limitations.
- 38.4 Contracts.
- 38.5 Grant assistance.
- 38.6 Nondiscrimination.
- 38.7 Nonliability.
- 38.8 Criminal and civil penalties.
- 38.9 Federal audits.

AUTHORITY: Sec. 413, Pub. L. 93-288, The Disaster Relief Act of 1974, 88 Stat. 157, 42 U.S.C. 5183, EO 11795, 39 FR 25939, as amended by EO 11910, 41 FR 15681.

Source: 41 FR 52052, Nov. 26, 1976, unless otherwise noted.