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WEST VIRGINIA ADMINISTRATIVE REGULATIONS

DEPARTMENT OF MINES

CHAPTER 22-4

SERIES 14

(1982)

SUBJECT: Rules and Regulations Governing the Standards for Certification  
of Coal Mine Electricians in West Virginia

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EMERGENCY REGULATIONS

FILED IN THE OFFICE OF  
A. JAMES MANCHIN  
SECRETARY OF STATE  
THIS DATE 12-14-82  
Administrative Law Division

I N D E X

SUBJECT: Rules and Regulations Governing the Standards for Certification  
of Coal Mine Electricians in West Virginia

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Section 1. General

1.01 Scope. These Rules and Regulations pertain to the certification of Underground and Surface coal mine electricians by the Department of Mines.

1.02 Authority. These Rules and Regulations are issued under authority of West Virginia Code, Chapter 22, Article 6-A, Section 6 as amended, in accordance with the provisions of Chapter 29-A, Article 3 of the West Virginia Code.

1.03 Effective Date. These Rules and Regulations meet the requirements of Chapter 29-A, Code of West Virginia, as amended, are promulgated on the \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_, and become effective on the \_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

1.04 Filing Date. These Rules and Regulations were filed in the Office of the Secretary of State on the \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

1.05 Certification. These Rules and Regulations are certified authentic by the Director of the Department of Mines.

Section 2. Definitions

2.01 Electrical Work. The term "electrical work" shall mean work consisting primarily of electrical construction, installation, testing, inspection, maintenance and repair tasks on electrical coal mining equipment, apparatus,

circuits, and/or distribution circuits used in or around a coal mine.

2.02 Work Area. The term "work area" shall mean the area of a mine where electrical work is being performed but not to exceed 500 feet in any direction.

2.03 Certified Electrician. The term "certified electrician" shall mean any person who is qualified as a mine electrician and who has passed an examination given by the Department of Mines, or has at least three (3) years of experience in performing electrical work underground in a coal mine, in a non-coal mine, in the mine equipment manufacturing similar equipment, and has satisfactorily completed a coal mine electrical training program approved by the Department of Mines. (Refer to 22-1-1).

2.04 Direct Supervision. The term "direct supervision" shall mean instructing, advising, and consulting with an employee performing electrical work. Direct supervision shall apply to certified electrician under whose supervision an apprentice electrician is performing electrical work. All electrical work performed by the apprentice electrician must be examined by a certified electrician before the circuits or equipment are returned to service. The certified electrician supervising the apprentice electrician shall be physically present in the same work area. Testing or trouble-shooting for electrical problems on energized electrical circuits may be performed by an apprentice electrician under the immediate supervision of a certified electrician.

2.05 Immediate Supervision. The term "immediate supervision" shall mean the presence of a certified electrician who will be with the apprentice electrician performing trouble-shooting or testing on energized electrical equipment or circuits when equipment or circuits are energized.

2.06 Certified Person. The term "certified person" when used to designate the kind of person to whom the performance of duty in connection with the operation of a mine shall be assigned, shall mean a person who is qualified under the provisions of the law to perform such duty. (Refer to 22-1-1).

2.07 Qualified Person. The term "qualified person" shall mean a person who has completed an examination and is considered qualified on record by the Department of Mines. (Refer to 22-1-1).

2.08 Approved. The term "approved" shall mean in strict compliance with mining law, or in the absence of law, accepted by a recognized standardizing body or organization whose approval is generally recognized as authoritative on the subject. (Refer to 22-1-1).

2.09 Apprentice Electrician. The term "apprentice electrician" shall mean an individual who is the holder of an apprentice electrician's card and is in training to perform maintenance work on electrical circuits or electrically operated equipment. Such individuals shall be issued an apprentice electrician's card by the West Virginia Department of Mines upon verification by the employer that such individual will begin training as required in Section 7.02 of these regulations. Prior to the issuance of an apprentice electrician's card such individual shall attend an eight (8) hour classroom training course in the hazards of electricity.

2.10 Certification Examinations. The term "certification examinations" shall mean all examinations in the categories within these regulations which have been approved by the Board of Miner Training, Education and Certification and administered by the Department of Mines.

Section 3. Categories of Electrical Certification

3.01 Categories of Certification. After the effective date of these rules and regulations, electrical certification shall be in the following categories:

- (1) Electrician (Low, medium and high voltage)
- (2) Electrician (Low and medium voltage)

Apprentice electricians may become certified electricians in any or all of the above categories by the methods of certification as provided in Section 4 of these rules and regulations.

Section 4. Levels of Certification

4.01 Apprentice Electrician. A person becoming an apprentice electrician to be trained to perform work on electrical circuits or electrically operated equipment shall be issued an apprentice electrician's card by the West Virginia Department of Mines upon verification by the employer that the individual is to be trained under an approved program for the next twelve (12) months. Such training programs shall consist of the following:

(a) During the twelve (12) month training period the apprentice electrician shall complete a minimum of 40 hour classroom training concerning subjects of:

- (1) State and Federal mining laws which apply to electricity
- (2) Permissibility
- (3) AC and DC Theory
- (4) Basic Electricity
- (5) Schematic Reading
- (6) Gas Detection and Fire Prevention
- (7) National Electric Code

(b) Twenty percent of the twelve (12) month training period shall be directly involved with electrical work.

(c) All types of training experience shall be logged and kept by the operator specifically for apprentice experience with the operator and apprentice both validating the experience by signatures. Records verifying apprentice's electrical experience shall be presented prior to electrical certification.

(d) All electrical work performed by an apprentice electrician shall be under the direct supervision of a certified electrician in accordance with the provisions of 2.04, and the electrical work performed by the apprentice electrician shall be examined by a certified electrician before the circuits or equipment are returned to service.

4.03 Electrician (Low, medium and voltage.) A person may become certified as a low and medium voltage electrician when such person has at least twelve (12) months of experience in performing electrical work as an apprentice with low, and medium voltage and has satisfactorily passed a certification examination.

4.04 Electrician (Low, medium, and high voltage). A person may become certified as a low, medium, and high voltage electrician when such person has at least twelve (12) months experience in performing electrical work as an apprentice, has worked with low, medium, and high voltage, (at least 20% of the required electrical experience during the twelve (12) month training program shall be directly related to high voltage) and has satisfactorily passed a certification examination.

(Note: The low, medium and high voltage certified electrician is permitted to perform all other types of electrical work at any mining operation.)

4.05 Low and Medium Voltage to Low, Medium, and High Voltage Electrician. A person certified as a low and medium voltage electrician shall have four (4) months experience ~~in performing high voltage work~~, at least 20% of which must be in performing high voltage work, and shall satisfactorily pass that portion of the electrical certification examination devoted to high voltage. During the period of time the low and medium voltage electrician is working on high voltage he shall work under the direct supervision of a certified low, medium, and high voltage electrician. The high voltage electrical work performed by the low and medium voltage electrician shall be examined by a certified low, medium and high voltage electrician before the circuits or equipment are returned to service.

The high voltage electrical experience of the low and medium voltage electrician shall be logged by the operator in a record book specifically for that purpose during the four (4) months training period.

4.06 Degree in Electrical Engineering. A person who has a Bachelor's Degree or Associate Degree in electrical engineering from an accredited college or university, and has at least six (6) months experience in performing electrical work under the supervision of a certified electrician may be permitted to become certified as an electrician (low, medium, and high voltage, or low and medium voltage) when such person has satisfactorily passed a certification examination for such category.

4.07 Electrical Training Programs Already in Effect. All persons in training to become certified as electricians prior to the effective date of these Rules and Regulations, shall be allowed to continue training and become certified as an electrician after the completion of one years experience in performing electrical work under the supervision of a certified electrician

and after successful passage (at least 80% score) of the certification examination.

Any person starting training to become a certified electrician on or after the effective date of these rules and regulations shall comply with these rules and regulations.

4.09

4.08 Prior Certification. All valid electrical certifications issued by the Department of Mines prior to the effective date of these regulations shall remain valid.

Any person holding a prior certification and wishing to be certified in another category must:

- 1) document his experience
- 2) successfully pass any other portion of the electrical certification examination not previously taken for low and medium voltage or low, medium and high voltage as required in Section 5 of these regulations, and,
- 3) successfully pass the hands-on (skill) portion of the electrical certification examination.

(Example: Prep Plant to low, medium and high voltage.)

## Section 5. Examinations

5.01 Electrical Examinations for Low and Medium Voltage. Examinations for low and medium voltage electrician certifications shall consist of ~~six~~ seven parts:

- (a) Direct current theory and application
- (b) Alternating current theory and application
- (c) Electric equipment and circuits
- (d) Permissibility of electric equipment
- (e) Legal requirements - state and federal law
- (f) National electric code
- (g) Hands-on (skill)

~~\*score of 80 percent of each part is required for successful passage of the examination. -- An individual who fails to achieve a passing score may apply~~

~~to retake the examination by filing an application for examination in accordance with the provisions of Section 5 of these rules and regulations after the expiration of fifteen days from the day such individual received notification of his score.~~

In order to pass the examination, the applicant must score at least 80 percent on parts (a) through (f) and must pass part (g). The hands-on (skill) part (g) is graded on a pass/fail basis only.

An applicant who fails to pass the examination, must reapply to take the examination within thirty (30) days after notification of a failing score. An applicant who fails the examination two (2) times must receive at least forty (40) hours of additional classroom training as provided in 4.01 (a) prior to re-taking the examination. An applicant who fails the examination the third time must repeat the entire apprentice program as required in section 4.01 of these regulations.

5.02 Electrician Examinations for Low, Medium, and High Voltage. Examinations for low, medium, and high voltage electrician certification shall consist of seven eight parts:

- (a) Direct current theory and application
- (b) Alternating current theory and application
- (c) Electric equipment and circuits
- (d) Permissibility of electric equipment
- (e) Legal requirements - state and federal laws
- (f) National electric code
- (g) Dangers of high voltage
- (h) Hands-on (skill)

~~A score of 80 percent of each part is required for successful passage of the examination. An individual who fails to achieve a passing score may apply to retake the examination by filing an application for examination in accordance with the provisions of Section 5 of these regulations after the expiration of fifteen days from the day such individual received notification of his score.~~

In order to pass the examination, the applicant must score at least 80 percent in parts (a) through (g) and must pass part (h). The hands-on (skill) part (h) is graded on a pass/fail basis only.

An applicant who fails to pass the examination, must reapply to take the examination within thirty (30) days after notification of a failing score. An applicant who fails the examination two (2) times must receive at least forty (40) hours of additional classroom training as provided in 4.01(a) prior to re-taking the examination. An applicant who fails the examination the third time must repeat the entire apprentice program as required in section 4.01 of these regulations.

#### Section 6. Certification Procedures

6.01 Application for Certification. Prior to taking an examination for certification in any of the categories listed in 3.01 of these regulations, an individual must submit an application to take such examination in the form provided in Appendix A of these regulations. Such applications must be received ~~by the Department of Mines at least fifteen days prior to the examination which the applicant has applied to take.~~ submitted within thirty (30) days of completion of the apprentice training program.

Upon receipt of an application for examination, the Department of Mines shall provide for the applicant to be examined at the next ~~regularly-scheduled~~ available examination which is at least fifteen days from receipt of the application and shall inform the applicant of the time and place for such examination. Within fifteen days after completion of an examination, the Department of Mines shall inform the applicant of his score upon the examination.

6.02 Certification. Upon determination that an application for certification has satisfactorily passed an examination for certification in any category listed in 3.01 of these regulations and has presented proper documented electrical experience, the Department of Mines shall promptly issue to such individual a certificate indicating that he has been certified in the particular category for which he has applied.

6.03 Effect of Certification. No person shall perform electrical work of any type (a) until such person has become a certified electrician to perform such work, or (b) unless such work is performed by an apprentice electrician under the direct supervision of a certified electrician, or (c) unless such work is performed on circuits of twenty-four (24) volts or less. This provision does not prohibit a person already being trained prior to the effective date of these rules and regulations to continue to perform electrical work under the direct supervision of a certified electrician until he has met the experience requirements. (See Section 4)

6.04 Certification from other States. Any person holding a mine electrician certification issued by any other state may act in the capacity of electrician until the next available electrical certification examination held by the Department of Mines, but not to exceed a maximum of ninety (90) days.

#### Section 7. Criteria for Apprentice Electrical Training Program

7.01 Apprentice Electrician Card. To be issued by the West Virginia Department of Mines when applied for by the miner with a statement from the mine operator stating that the miner will be in an electrical training program for the next twelve (12) months. The Apprentice Electricians Card will be issued for twelve (12) months and may be extended for valid reasons by the Department of Mines.

7.02 Approved Electrical Training Program. A minimum of 40 hours of classroom training covering the following subjects:

- (1) State and Federal laws which apply to electricity
- (2) Permissibility
- (3) AC and DC theory
- (4) Basic electricity
- (5) Schematic reading
- (6) Gas detection

The twelve (12) month training will include electrical and mechanically related work with 20 percent of the twelve (12) months being directly involved with electrical work. (Note: 12 month training is at least 80 percent of all regularly scheduled days in 12 months.)

7.03 If for valid reasons, accepted by the Director, an Apprentice Electrician is unable to complete the twelve (12) month apprentice training program with twelve (12) consecutive months, the Director may permit such individual a time extension of such apprentice card, however, such time period extension shall not exceed two (2) years.

#### Section 8. Annual Training

8.01 Electrical Retraining. In order to maintain electrical certification an individual must complete an annual approved eight (8) hour refresher course. The course will include but not be limited to permissibility, state and federal law, safety in job performance and training on equipment applicable to the card holders work. A minimum of eight (8) hours of refresher training will be required regardless of the number of cards held.

8.02 Failure to Maintain Electrical Certification. An individual who fails to attend the required refresher training annually will be required to ~~repeat~~ retake the electrical certification examination. Upon scoring at least 80 percent on each subject, the individual will be issued a new electrical certification card.

~~This provision does not apply to an individual who was off work for valid reasons at the time the refresher training was made available.~~ This provision will not apply to an individual who was unable to take the annual electrical refresher training for valid reasons accepted by the Director, however, if such individual does not receive the annual electrical refresher training within two (2) years such individual shall be required to retake the electrical examination to again become re-certified. The individual must, however, complete eight (8) hours of refresher training within ninety (90) days after returning to work.



State of West Virginia

Department of Mines

Charleston 25305

JOHN D. ROCKEFELLER, IV.  
Governor

WALTER N. MILLER  
Director

December 13, 1982

The Honorable A. James Manchin  
Secretary of the State of West  
Virginia  
State Capitol Building  
Charleston, West Virginia 25305

FILED IN THE OFFICE OF  
A. JAMES MANCHIN  
SECRETARY OF STATE  
THIS DATE 12-14-82  
Administrative Law Division

Dear Secretary Manchin:


The attached regulations represent a partial revision of existing Department of Mines Administrative Regulations, Series 14, 1979.

It is necessary to promulgate these revised regulations on an emergency basis because of the numerous problems incurred by our agency in the enforcement of current rules, as well as by those persons in the mining industry, in attempting to comply with the requirements. The revised regulations offered today will alleviate many of the problems in the mining industry, while permitting us to pursue our statutory authority of safeguarding those employed in and around the coal mines in the state of West Virginia.

The submission of these regulations for emergency implementation are in accordance with Chapter 29A of the West Virginia Code, in that all language to be replaced is crossed out and all language to be added is underlined.

Should there be any questions or problems with this submission, please notify me immediately.

Yours for Mine Safety

  
Walter N. Miller, Director  
West Virginia Department of Mines

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Enclosure