



UNDERGROUND ELECTRICAL REPAIRMAN

PHOTO ID REQUIRED

Article 3 of the Coal Mine Safety Laws of Virginia establishes requirements for certification of coal mine workers. The certification requirements are included in §45.1-161.24 through §45.1-161.41 in which the Board of Coal Mining Examiners is established for the purpose of administering the certification program. The Board has promulgated certification regulations 4 VAC 25-20, which set the minimum standards and procedures required for Virginia coal miner examinations and certifications.

CERTIFICATION CLASSIFICATION: *Underground Electrical Repairman

This certification authorizes the holder to:

- Perform electrical work and inspections at all underground and surface areas of underground coal mines
- Make examinations on electrical equipment
- Conduct and record results of electrical examinations

NOTE: This certification shall be used at surface and underground mines.

APPLICATION/EXPERIENCE REQUIREMENTS:

- Application (BCME-1) and \$40.00 fee 5 working days prior to examination
- One year of electrical experience in underground coal mining under the direction of a certified underground electrical repairman or appropriately related work experience approved by the Chief of the Division of Mines
- Current first aid training (MSHA 5000-23 Annual Retraining or New Miner Inexperienced Training acceptable)
- Six months credit will be granted for electrical educational training from a college, technical school, or vocational school
- Hold a General Miner Certification

NOTE: Must provide MSHA Individual Identification Number prior to certification being issued.

EXAMINATION REQUIREMENTS: A score of 80% on each element of the examination.

| ELEMENTS OF EXAM | NUMBER OF QUESTIONS |
|---|----------------------------|
| ▪ Alternating Current (AC) | 20 |
| ▪ First Aid (FA) | 20 |
| ▪ Direct Current (DC) | 20 |
| ▪ Circuits & Equipment/drawings (CE) | 25 |
| ▪ Cable Splicing (CS) | 20 |
| ▪ High Voltage (HV) | 20 |
| ▪ Legal Requirements (LR) | 20 |
| ▪ Permissibility (PR) | 20 |
| ▪ Gas Detection - practical demonstration | |

- Records - Practical Stations (7)
 1. Control Circuit Troubleshooting - Electrical Schematic Reading (ER)
 2. Electrical Examinations - Record Keeping Underground (RU)
 3. Electrical Examinations – Record Keeping Surface (RS)
 4. Cable Troubleshooting (CT)
 5. Circuit Breaker Troubleshooting (CB)
 6. Permissibility (PD)
 7. High Voltage Power Move (VP)

RECOMMENDED REFERENCE/STUDY MATERIALS:

- Electrical Study Guide
- Coal Mine Safety Laws of Virginia
- BCME Requirements
- Title 30 CFR Parts 18, 75, 77
- First Aid for Miners Study Guide
- Mine Gases Packet

The above mentioned study materials are available at the Department of Mines, Minerals and Energy's Big Stone Gap Office, Customer Assistance Center (276) 523-8233 and Keen Mountain Field Office (276) 498-4533.

***8 hours Electrical Repairman continuing education will update this certification.**

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