The Issue

The Bureau of Mine Safety (BMS) wants to improve the miner certification process by expanding the electronic testing offered through New Stanton beyond the current method used for bituminous certified mine officials to include certified miners, machine operators, and shotfirers.

Discussion

The mining laws require miners to be certified as being competent to perform certain jobs. The certification of miners is an attempt to assure that they possess the knowledge and skill to protect their own safety as well as the safety of others affected by their actions. Certificates are required for miner, machine runner, shotfirer, mine foreman, assistant mine foreman, mine examiner, and mine electrician.

Currently, bituminous certification exams are conducted every four to six weeks. The anthracite region conducts two exams each year. The industrial minerals certification programs for mine foremen and blasters are conducted as needed. BMS personnel administer the entire certification program from the development of the tests, administering the exam, grading, and awarding of certificates.

Proposed Solution

BMS is proposing a two-phased approach with immediate changes to the process before shifting to an automated solution. The following outlines what is envisioned for both.

Immediate Changes

The testing of applicants seeking to become certified miners begins with applicants downloading and completing an application from the Bureau’s website. The applicant then produces this form to the mine inspector at the mine site. The inspector reviews the application for completeness and verifies the required experience had been attained. If found acceptable, the inspector schedules the applicant for the practical portion of the exam. The BMS inspector then asks the applicant a couple of basic questions to verify that the apprentice miner knows escapeways/lifelines, the locations of the refuge alternatives, where the self-contained self-rescuer (SCSR) caches are in the mine, and usage of a gas detection device (Machine Operators).

If the applicant successfully completes the practical portion of the test, the mine inspector forwards the application to BMS at the New Stanton office (BMS – New Stanton) with a recommendation that the applicant be scheduled for an exam. BMS – New Stanton then
schedules the applicant for an exam and forwards this information to the applicant via email. Identification and payment by check or money order will be required the day the online test is administered at the New Stanton office. BMS provides the test results by email and followed with a mailed paper certificate.

The miners test would include 50 questions of a general nature to verify that the applicants have a knowledge of basic mining practices, safety, and are responsible enough to keep themselves and any apprentice miners safe. Applicants would have to score 80% (40 correct) to pass the exam.

The front-end process for machine operators would mirror that for certified miners. An applicant would provide an MSHA underground gas card to verify that the applicant has displayed evidence as to fitness and competency to handle and use an approved gas detection device. Inspectors could visit mine sites when they have the opportunity and observe work habits of machine operators for further verification of competency. The machine operators test would be 75 questions, and an applicant would have to score of 80% (60 correct) to pass.

Applicants seeking to become shotfirers can attend a blasting awareness class before applying online for the shotfirers test. The shotfirers test would be 75 questions, and an applicant would have to score 80% (60 correct) to pass.

Automated Solution

The testing of applicants seeking to become certified miners begins with applicants expressing their desire to the mine inspector at the mine site. The BMS inspector then asks the applicants a couple of basic questions to verify that the apprentice miners know escapeways, the locations of the rescue chambers, and where the SCSR caches are in the mine.

With correct answers, the BMS inspector submits an approval form electronically documenting the applicant’s answers and designating eligibility to apply to take the test. Applicants are then able to apply and pay online, and to include verification of work experience from the mine company. If needed, BMS would request additional information from the applicants. Otherwise, BMS would establish a test date.

BMS would require identification the day of the online test which BMS would administer at BMS – New Stanton. If BMS does not establish on-line payment, the applicant would pay by check or money order the day of the test. BMS would provide test results by email and followed with a mailed paper certificate.

The miners test would include 50 questions of a general nature to verify that applicants understand basic mining practices, safety, and are responsible enough to keep themselves and any apprentice miners safe. Applicants would have to score 80% (40 correct) to pass the exam.

Machine operators’ testing begins with applicants filing online and providing documentation of their work experience, which would include information for their Mine Safety and Health Administration (MSHA) underground gas card to verify fitness and competency to handle and
use an approved gas detection device. The machine operators test would be 75 questions and an applicant would need a score of 80% (60 correct) to pass.

Applicants seeking to become shotfirers can attend a blasting awareness class before applying online for the shotfirers test. The shotfirers test would be 75 questions, and an applicant would need a score of 80% (60 correct) to pass.

Other Aspects

Unsuccessful applicants for the above tests may retest at the next available slot.