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Final Rule

Part VIII

**Department of the
Interior**

**Office of Surface Mining Reclamation and
Enforcement**

**Surface Coal Mining and Reclamation
Operations; Permanent Regulatory
Program; Training, Examination, and
Certification of Blasters; Final Rule**

DEPARTMENT OF THE INTERIOR

Office of Surface Mining Reclamation and Enforcement

30 CFR Parts 816, 817, and 850

Surface Coal Mining and Reclamation Operations; Permanent Regulatory Program; Training, Examination, and Certification of Blasters

AGENCY: Office of Surface Mining, Reclamation and Enforcement, Interior.

ACTION: Final rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSM) is issuing final rules that delegate responsibility for the development and implementation of blaster certification programs to regulatory authorities with permanent regulatory programs. This is being done to accommodate the States' desire to develop and implement their own blaster certification programs. Additional amendments have been adopted to ensure that blasts are conducted only by certified blasters.

EFFECTIVE DATE: April 14, 1983.

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SUPPLEMENTARY INFORMATION:

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- II. Rules Adopted and Responses to Public Comments on Proposed Rules
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I. Background

Section 515(b)(15)(D) of the Surface Mining Control and Reclamation Act of 1977, Public Law 95-87, 30 U.S.C. 1201 *et seq.* (the Act), requires that all blasting operations be conducted by trained and competent persons as certified by the regulatory authority. Section 719 of the Act directs that regulations be promulgated which require "the training, examination, and certification of persons engaging in or directly responsible for blasting or use of explosives in surface coal mining operations." Section 719 also states that such regulations may be promulgated by the "Secretary of the Interior (or the approved State regulatory authority as provided for in Section 503 of the Act)." Final regulations to implement those sections were published at 45 FR 82084-82100 (December 12, 1980). Previous proposals were published at 43 FR 41834 (September 18, 1978) and at 44 FR 36318 (June 29, 1979).

In the December 12, 1980, rules adopting the old blaster certification program OSM interpreted Section 719 of the Act as providing statutory authority to promulgate rules for a comprehensive

national program to train, examine, and certify "blasters-in-charge," a regulatory term not found in the Act (45 FR 82092-94). Section 719 of the Act also allows approved State regulatory authorities to develop and implement blaster certification programs.

On January 29, 1981, the Secretary of the Interior ordered that all regulations which were excessive, burdensome, or counterproductive be identified and asked States and industry to recommend sections to be revised. OSM, in compliance with the administrative mandate to simplify and remove excessive regulatory burdens, repropoed rules governing training, examination, and certification of blasters in surface operations of coal mines. The repropoed rules were published on March 24, 1982 (47 FR 12779).

II. Rules Adopted and Responses to Public Comments on Proposed Rules

OSM today is issuing final rules within which a State with an approved State regulatory program can implement and design its own blaster certification program.

The rules adopted today require regulatory authorities to ensure that all blasting operations are conducted by qualified and trained blasters. Under the rules adopted today each State must choose and develop the method of training, examining, and certifying blasters which best meets local needs within the regulatory framework adopted herein. In States with Federal programs, OSM must assume the responsibility to develop such programs.

In the rules adopted today, the training of blasters is mandatory. A State may mandate blaster training at specified schools, conduct courses based on curriculum developed under its guidance, or choose to require all applicants to demonstrate and/or document that they have received training in some other way prior to examination or certification. The State may impose retraining or choose to find another method to ensure continued blaster competence. Initial evaluation of competence by written exam is mandated by these rules and must reflect certain subject areas. It will, however, be left to the State to develop and implement the exam. The State regulatory authority must also review and verify the practical field experience of persons seeking blaster certification. Each State may build additional procedures, conditions and criteria into its program as long as the program satisfies the basic requirements cited.

OSM received comments from industry, citizens and State regulatory authorities discussing the proposed

amendments. Many commenters agreed with the concept of State responsibility for blaster training, examination and certification in lieu of the national program previously proposed. All comments received have been considered and incorporated into the rules as indicated.

General Comments on Part 850

OSM had specifically solicited comments on whether it could promulgate National standards for blaster certification. Some commenters believed that OSM had correctly proposed to allow exclusive State jurisdiction over blaster training examinations and certification. One noted "that States are capable of formulating effective and appropriate state blaster certification programs." Other commenters believed it is beyond the authority of OSM to issue any regulations governing blaster certification and that each State must be responsible for developing provisions implementing a blaster certification program in its State program.

OSM believes that the provisions of a training, examination and certification program can best be developed at the State level based on a general National programmatic rule.

OSM's authority to issue regulations establishing the framework for State blaster certification is incident to Sections 503(a)(1), 515(b)(15)(d), and 719 of the Act, among other sections. States will have responsibility to develop specific provisions. Subchapter M will ensure consistency and provide a yardstick by which OSM can approve State programs and conduct oversight.

A commenter objected to OSM's interpretation of Section 719 of the Act, which allows each State to develop its own program and procedures governing blaster training, examination and certification. This commenter preferred a standardized, nationally uniform program. The commenter pointed out that in the initial years since the statute has been passed, no State has implemented an acceptable blaster certification program.

OSM believes that Section 719 of the Act, especially when read in conjunction with Section 102 of the Act provides ample authority for these regulations. In considering whether to develop a national exam and training program, OSM requested comments from the coal-producing States who would otherwise bear the burden of this task. Most States preferred to take the initiative in this area. Some States raised concerns over funding, but nevertheless preferred to be given the opportunity to take control

over this aspect of the program. This concept will allow training to be adapted to local blasting techniques. Practices used in local mines and under particular local geologic conditions may be designed to emphasize local and regional characteristics. Moreover, since the publication of the December 12, 1980, final rule, at least one State (West Virginia) has developed blaster certification exams, and other States in cooperation with West Virginia have given consideration to training programs and facilities. States such as Alabama, Pennsylvania, Oklahoma and Kentucky already have programs which, with certain modification to course content and/or procedures, could be used to implement the blaster certification concept.

A commenter asserted that proposed §§ 850.13, 850.14, and 850.15 exceed OSM's authority because they set work practice standards and procedures better left to the State's discretion. OSM believes that the criteria established in §§ 850.13, 850.14 and 850.15 serve to standardize subject areas and program procedures, allow the industry to more easily tailor design courses to this purpose and enhance the likelihood of reciprocity between States. These are not work practice standards. Based on these reasons, OSM has chosen to retain the minimum criteria, with minor changes as noted elsewhere.

Section 850.1 Scope.

New § 850.1 specified that 30 CFR Part 850 sets requirements and procedures applicable to the development of regulatory programs for the training, examination, and certification of persons engaging in or directly responsible for the use of explosives in surface coal mining operations.

Section 850.5 Definition.

OSM has adopted a definition of "blaster" similar to the one proposed. "Blaster" is defined as a person certified to be directly responsible for the use of explosives in surface coal mining operations. The proposed words "for blasting" which would have modified the words "use of explosives" have not been adopted. The words could have created the misimpression that handling of explosives in surface coal mining operations for non-blasting purposes need not be supervised by a certified blaster. Non-blasting aspects of explosives use such as transportation and storage are to be conducted under the supervision of a blaster.

Commenters were concerned that OSM's proposal would have required that all persons "engaging in" blasting be trained and certified in all topics of

blasting. These commenters felt it was unnecessary for all individuals who are involved with explosives such as those receiving explosives or drilling holes, to be certified. They pointed out that "the man who loads the holes most often is not the man who designs the holes." The commenter recommended a two part certification: (1) Office personnel, and (2) field personnel.

In the rules adopted today OSM has clarified its intent. Surface mining operations using explosives must be conducted under the direction of a "certified blaster." The rule does not mandate that all personnel "engaging in" blasting operations be certified as blasters. The blasting crew member or members responsible solely for receiving, drilling, loading, or transporting explosives would report to and be controlled and trained by the "certified blaster." Only individuals responsible for the conduct of blasting operations must be certified. Section 850.13(a)(2) specifically refers to and requires training for non-certified employees working in a blasting crew. It requires that these persons work under and receive direction and training from the certified person. OSM has not accepted the commenter's suggestion that certification be divided because a responsible blaster needs to know both office and field blasting operations to ensure the successful achievement of the requirements of the Act.

A commenter suggested that the proposed definition of blaster might conflict with the present United Mine Workers of America definition of a "supervisor." The commenter believed that the phrase "engaging in" put the blasters into the category of "classified work" which would prevent supervisors from serving as "blasters." The comment proposed the alternative of "direct responsibility for" rather than "engaging in" the work of blasting.

OSM has adopted the recommendation as proposed. In proposing the definition OSM did not intend to include or exclude anyone from union coverage, not to alter employee-union relations. For each mine, however, at least one person must be directly responsible for the use of explosives at any time. That person must be a certified blaster and must be present at each blast. Such a person may engage in, as well as be directly responsible for, the use of explosives. Persons who merely "engage in" the use of explosives without the responsibility for their use need not be certified. Similarly, some supervisory personnel may not be directly responsible for the use of explosives, even though some of the people they supervise may engage in

blasting operations. These persons need not be certified either. But all persons who are directly responsible for the use of explosives must be certified. At some operations the person who is directly responsible may design as well as drill and load or perform other functions. These persons are required to be certified.

Corresponding changes have been made to §§ 850.12(b) and 850.13(b) to include the phrase "responsible for" the use of explosives rather than "engaging in."

Section 850.11 Applicability.

As proposed, the applicability section would have specified that part 850 applies to regulatory authorities responsible for enforcing a permanent surface coal mining regulatory program. OSM believes this section is redundant and has not adopted it.

Section 850.12 Responsibility.

Section 850.12(a) requires regulatory authorities to promulgate rules governing the training, examination, and certification of blasters in surface coal mining operations. States are to submit rules governing blaster certification to OSM for approval as a State program provisions under 30 CFR Parts 731 and 732.

Section 850.12(b) requires each regulatory authority with an approved regulatory program to submit a program for the examination and certification of persons responsible for the use of explosives in surface coal mining operations within 12 months of State program approval or implementation of a Federal program or within 12 months after the effective date of these rules, whichever is later.

A State regulatory authority objected to OSM's delegation of the responsibility for blaster training, examination and certification to the States because of the financial and programmatic burden this places on the State regulatory authority. This State criticized the existing funding levels as inadequate to produce a training and certification program. The commenter did not object to taking program responsibility, but objected to lack of specific programmatic guidance and funding.

OSM proposed to change its earlier emphasis on a national training program and exam, based on comments from the majority of coal-producing States which preferred to take responsibility for the program. OSM expects to work with the States to provide grant assistance and technical assistance to States in developing or reviewing blaster

certification methods and examinations. Although this final rule mandates that applicants for certification be experienced and trained, it does not necessarily require States to establish training facilities and courses as was required under the previous rule. Rather it allows the use of other courses covering the topics required by the rule.

In the proposed rules, OSM had requested comments regarding the time frame for implementing blaster certification programs. Commenters objected to the proposal that all blasters in a State be certified within six months after a blaster certification program is adopted for the State. A State regulatory authority recommended 24 months rather than 12 months for program development. OSM has decided to adopt the 12 month period in § 850.12(b) for program development and a further 12-month period for the certification of all blasters. OSM believes that 12 months to obtain program approval is adequate for program development. Program approval will have to include a valid exam as well as all of the other program elements. However, the new rule contains a provision under which OSM may approve an extension of the 12-month period if a State demonstrates good cause. An extension is not considered appropriate to delay implementation of a program, but will be approved only where unforeseen complications or other circumstances warrant.

OSM concurs with the recommendation of several commenters that a longer period for certification be allowed. Accordingly a twelve month period has been adopted. However, because the requirement is a condition on blasting, it is properly imposed on operators and is incorporated as a performance standard into Subchapter K, as §§ 816.61(c) and 817.61(c), described below.

An operator suggested that OSM require that State regulatory personnel administering the blaster certification program be certified.

OSM is placing the responsibility on the regulatory authority to determine qualifications of the personnel responsible for implementing the certification program and does not believe it necessary to prescribe the manner in which this is to be done.

OSM had solicited comments on the issue of whether a State blaster certification program should be applied on Federal lands in a State. One State regulatory authority commented that it should apply its approved certification program only to lands under its area of jurisdiction, and leave the applicability

of the certification program on Federal lands to the Secretary's discretion.

OSM believes that in a State with a cooperative agreement an approved State certification program should apply to blasting on Federal lands within the State. Because many mining operations may involve coal both on non-Federal and Federal lands, and because other State regulations apply on Federal lands it is appropriate to require the certification of blasters only by one regulatory authority. This, however, will be pursued on a case-by-case basis under specific cooperative agreements. OSM will promulgate rules at a later date governing certification of blasters for operations on Federal lands in States without cooperative agreements. At a minimum, OSM will recognize certificates issued under an approved State program for operations on Federal lands within the particular State.

Commenters further endorsed reciprocity among States in order to facilitate blasters working in more than one State.

OSM endorses the concept of State reciprocity. This should be facilitated by the State program review and approval process, under which all States with approved programs must conform with the rules adopted today and the Act. It is expected that the individual States will work out the details of mutual acceptance under licensing procedures.

Section 850.13 Training.

Section 850.13 (a) requires the regulatory authority to adopt procedures to ensure that prospective blasters receive training, including but not limited to technical aspects of blasting operations and the requirements of State and Federal laws governing the storage, transportation and use of explosives. The rule also requires that all uncertified persons in blasting crews receive direction and on-the-job training from those certified as blasters. This ensures that workers involved in the use of explosives receive direction from trained persons who are knowledgeable in the proper use and handling of explosives.

OSM's proposed rule would have required that "blasters" receive training. A commenter suggested adding the word "certified" to modify "blaster" in the requirement for blasters to receive training. The commenter noted that under the definition a blaster must be certified. In proposing the rule, OSM did not intend to require those already certified to be trained. Rather, the intent was that the requirement apply to those who seek to become certified.

OSM has amended § 850.13 (a) (1) to require training by those who seek to

become certified. As suggested by other commenters a further provision has been added at § 850.15 (c) (1) which allows a regulatory authority to require retraining for continued licensing. This is discussed below.

A commenter recommended deletion of "storage and transportation of explosives" from the training requirements of § 850.13 and the exam requirements of § 850.14. The commenter asserted that this requirement was not authorized by the Act.

The Act requires that the use of explosives be under the direction of a certified blaster. OSM interprets "use of" to include transportation and storage. Since the blaster directs the receipt, storage and movement of explosives it is essential that he must be trained in the proper methods of storage and transportation.

OSM does not intend to govern the facets of explosives use regulated by other Federal or State agencies, but rather to ensure that as a condition of certification a blaster is knowledgeable of all these aspects. Accordingly, the rule governing storage and transportation of explosives has been adopted without change.

A commenter objected to the proposed requirement of "on-the-job training" in § 850.13 (a) (2) because it appeared to duplicate MSHA's requirement with respect to health and safety.

OSM recognizes that MSHA, as well as OSM, requires on-the-job training of those involved in the use of explosives in underground mines. MSHA's requirements for non-certified persons assisting blasters will also include health and safety matters. OSM's on-the-job training requirements include technical aspects of the use of explosives that are not necessarily covered by MSHA's rules.

Section 850.13 (b) requires training courses to be available and sets forth specific subjects to be included in training courses. Rather than have a separate list of subjects for training in § 850.13 and another list of subjects to be included in an exam in § 850.14 as was proposed, OSM has consolidated them into one list of subjects for both purposes. These subjects include:

- Explosives, including—
 - Selection of the type of explosives to be used;
 - Determination of the properties of explosives which will produce desired results at an acceptable level of risk; and
 - Handling, transportation, and storage.

- Blast designs, including—
 - Geologic and topographic considerations;
 - Design of a blast hole, with critical dimensions;
 - Pattern design, field layout, and timing of blast holes; and
 - Field applications.
- Loading blastholes, including priming and boosting.
 - Initiation systems and blasting machines.
 - Blasting vibrations, airblast, and flyrock, including—
 - Monitoring techniques, and
 - Methods to control adverse affects.
 - Secondary blasting applications.
 - Current Federal and State rules applicable to the use of explosives.
 - Blast records.
 - Schedules.
 - Preblasting surveys, including—
 - Availability,
 - Coverage, and
 - Use of in-blast design.
 - Blast-plan requirements.
 - Certification and training.
 - Signs, warning signals, and site control.
 - Unpredictable hazards, including—
 - Lighting.
 - Stray currents, and
 - Radio waves.

Commenters supported the list of topics included in § 850.13(b), and recommended including some additional topics as a refinement to the list. The proposed additions are discussed as follows:

Powder factor. OSM recognizes powder factor as a significant component of blast design. However, this calculation is only one facet of blast design and not an aspect requiring extra emphasis. The study of powder factors will be included in topics such as the properties of explosives, geology and the intensity of ground movement required. Those factors vary from site to site.

Misfires. The training and testing for subjects such as blast design, initiation systems, and loading techniques will cover prevention of misfires from such occurrences as cutoffs and improper priming. The methods for handling misfires after they occur has been added to the list of unpredictable hazards and has been included in the list of required topics.

Delay systems. The commenter suggested added emphasis on "delay systems" in the requirement for initiation systems. Concepts such as blast patterns, blasting machines, initiation systems and ground vibration mitigation include application of delay blasting techniques. OSM believes that

singling out delay systems for additional emphasis is not necessary since blasting delay techniques will certainly be included in any course on these topics.

Preblast surveys, signs, warnings and site control. The commenter suggested that these items be included on the list of topics to be studied. OSM accepts this comment and has included these items on the list.

Commenters recommended deleting the requirement in proposed § 850.13(b)(9) to train blasters in the "chemical and physical properties of explosives," stating that only the basic properties have to be known. OSM agrees that a detailed knowledge of the chemical properties is unnecessary and in the corresponding provision of the final rule, § 850.13(b)(1) includes training in the selection of explosives and a knowledge of the relevant properties of explosives to produce desired results at an acceptable level of risk. This would require a general knowledge of the properties of most explosive materials such as specific gravity, water resistance and detonating velocity, as well as the hazard and dangers associated with specific types of explosive materials.

A commenter suggested separating unpredictable hazards from effects of blasting such as flyrock and ground vibration, in the list of training subjects. The commenter also recommended use of the term "nonpredictable" rather than "unanticipated" hazards, since they are in fact, anticipated hazards, which cannot always be predicted. OSM has separated these topics, and they are included in §§ 850.13 (b)(5) and (b)(14). The term "unpredictable" has been adopted.

Commenters believed that the language of § 850.13(b) would allow the use of self-study programs or slide shows without instructors familiar with the subject matter. These commenters were concerned that the subject matter could not adequately be taught without the use of instructors and the ability to obtain answers to questions or exchange ideas.

OSM agrees with the commenter that instructors probably provide a more adequate educational approach than do packaged materials. However, OSM also believes that some of the required subjects might be covered through these materials and therefore believes that the regulatory authorities should be allowed to determine the training method for each subject. No program will be approved until OSM is satisfied that the requirements of these rules will be met.

A commenter noted the apparent overlap between OSM and the Mine Safety and Health Administration

(MSHA) training programs. MSHA training may serve to fulfill some of the requirements for blaster training under § 850.13 and contribute to the overall certification process. MSHA training also applies to underground miners and underground blasting operations not covered by OSM's rules. The commenter encouraged future cooperative efforts between OSM and MSHA in training matters. OSM will explore this possibility.

Commenters were concerned that the rule requiring training placed the burden on regulatory authorities and relieved OSM and operators of any such responsibility.

OSM does not intend for the regulatory authority to be solely responsible for training. The rule requires that regulatory authorities ensure that "blasters receive training." The regulatory authority may choose to accept outside courses, require combinations of MSHA and industry courses or provide its own training. The object is that persons are trained before they become certified; the methods and degree of regulatory authority involvement will vary from State to State.

Section 850.14 Examinations.

Section 850.14 requires the regulatory authority to examine candidates for blaster certification. Regulatory authorities must verify the competence of persons responsible for the use of explosives in surface coal mining operations using written examinations covering technical aspects of blasting, State and Federal laws governing the storage, use and transportation of explosives. The regulatory authority must also verify practical field experience of the candidates. The level of field experience must demonstrate that the candidate possesses practical knowledge of blasting techniques, understands the hazards involved in the use of explosives and has otherwise exhibited a pattern of conduct consistent with the acceptance of responsibility for blasting operations.

Furthermore, the rule requires regulatory authorities to examine prospective blasters in the subjects listed in § 850.13(b).

Commenters requested that OSM allow the demonstration of competence to be accomplished by methods other than written examination. They observed "there are very competent miners that can barely write their own name."

Preparation of blasting designs, understanding of explosives specifications, the use of safety

brochures and the submission of records require the ability to read, write and perform basic mathematic functions. OSM therefore believes that the blaster, as a person responsible for complying with laws, designs and records, and for controlling the adverse effects of blasting, must demonstrate a written ability to communicate in the subject area. In previous rules OSM had also adopted the requirement of a written exam in order to evaluate the blasters' ability to use explosives as well as in order to ensure at least a minimal reading ability.

Commenters suggested adjusting the emphasis on blaster certification to allow more credit for work experience or perhaps "grandfathering" blasters with more than five years of experience. The rules adopted today require a written exam, coupled with practical field experience. The amount of emphasis or weighting placed on either part is not specified. There is, however, no provision for "grandfathering" or exemption from the written exam. Regulatory authorities may find it useful to augment the written exam with oral or practical exams for specific topics. OSM believes, however, that a written exam represents the minimum allowable demonstration of ability.

A commenter suggested that OSM emphasize the concept of practical field experience, and recommended that a provision be added requiring 2 years of field experience as part of the qualifications. Other commenters believed that the requirement for practical field experience was not necessary to be a trained and competent blaster, rather that competence should be based solely upon tests. OSM recognizes the value of practical field experience and has adopted it as part of the qualifications for candidates, in § 850.14(a)(2). OSM intends that States include minimum experience criteria in their acceptance of candidates for certification. OSM has reconsidered this requirement and believes that adequate latitude is provided to State regulatory authorities to emphasize or deemphasize practical experience within limits. In some blasting operations practical work experience may be more important than the ability to provide textbook solutions. Those States which already have blaster certification programs have generally required established minimum experience levels. OSM supports the evaluation of experience as part of a blaster certification program.

Section 850.15 Certification requirements.

Section 850.15(a) requires the regulatory authority to certify, for fixed

periods, candidates who are found to be competent and to have the necessary experience to accept responsibility for blasting operations in surface coal mining operations.

Section 850.15(b) provides procedures for suspension and revocation of blasters' certifications. Suspension or revocation may and, upon a finding of willful conduct, must occur when, after notice and hearing, certain conditions are found to exist. Notice and hearing may be provided after suspension only if it would not be practicable to provide it before. The conditions are:

- (i) Noncompliance with any order of the regulatory authority.
- (ii) Unlawful use in the work place of, or current addiction to, alcohol, narcotics, or other dangerous drugs.
- (iii) Violation of any provision of the State or Federal explosives laws or regulations.
- (iv) Providing false information or a misrepresentation to obtain certification.

Section 850.15(c) allows the regulatory authority to impose additional educational or other requirements for the maintenance of certification. Section 850.15(d) requires the regulatory authority to adopt regulations which require blasters to take precautions to protect their certificates from loss, theft, or unauthorized duplication, and to require immediate reporting of any loss, theft or duplication.

Section 850.15(e) requires regulatory authorities to impose certain conditions for maintaining certificates. Three minimum conditions are stated: (1) That blasters immediately exhibit certificates to authorized representatives of OSM or the regulatory authority on request; (2) blaster certificates are not transferrable or assignable; and (3) blasters cannot delegate their responsibility to anyone who is not a certified blaster.

OSM had proposed to require that certification be for a fixed period. A commenter did not like the concept of a "fixed period" and noted that other certified persons such as doctors and lawyers have licenses which remain valid indefinitely. Other commenters felt that OSM's proposal did not go far enough; they suggested a mandatory retraining requirement as well.

In some professions licensing is conducted on a recurring basis (often yearly) and other professions require extensive retraining or continuing education to continue practice. Renewal provisions vary, but they are generally less stringent than initial certification. OSM believes that a one time certification would simplify the process, but in so doing would miss the

important opportunity to weed out those who are unable to continue to conduct blasts effectively and safely. Therefore OSM has retained the concept of certificates lasting "for a fixed period," and endorses the concept of periodic retraining and/or continuing education in order to assure continuing compliance with competence requirements. OSM has not, however, adopted mandatory retraining requirements.

A commenter suggested that a provision be added for recertification after revocation in § 850.15. Such a provision is not necessary. An individual is not precluded from applying anew to be certified under § 850.15(a) even after his or her certificate is revoked. However, the reasons for the earlier revocation could act as a bar to future certification.

A commenter recommended deletion of proposed § 850.15(b)(1)(v) that would have allowed prevention or suspension of a certification for "other good cause." The commenter asserted that the provision did not add beneficial details to the reasons for suspension and revocation of a blaster's certification and was ambiguous. OSM concurs with this recommendation and has not adopted proposed § 850.15(b)(1)(v). It is believed that remaining §§ 850.15(b)(1)(i)-(iv), especially paragraph (i) allowing suspension for noncompliance with orders of the regulatory authority, provide adequate grounds for action.

A commenter described the provisions for suspension and revocation of certificates under § 850.15 as not rigorous enough, explaining that infractions of the laws governing the use of explosives are very serious and warrant specified action. The commenter suggested changing the discretion afforded in § 850.15(b) in suspending or revoking a blaster's certificate to mandatory action. Other commenters believed that sanctions should be placed on basic qualifying criteria and that certain actions be consistent with Section 518 of the Act with respect to penalties, opting for terms such as "willful" and "flagrant" violation rather than minor or unknown occurrences. OSM believes that suspension or revocation is appropriate if a violation is willful, but does not believe that suspension should be mandatory in all cases. OSM has accepted this suggestion in part, and has adopted stronger language in this provision.

Another commenter requested addition of a provision which would mandate suspension at the request of an operator. The concept of an operator

causing the suspension of the certificate of one of its employees has not been incorporated because the actual decision to suspend should be retained by regulatory authority; employer-employee differences should be resolved in other forums.

Sections 816.61 and 817.61 (Proposed § 850.16).

OSM had proposed in § 850.16 to require regulatory programs to ensure that: (1) The blast is to be fired only under the direction of a certified blaster; (2) no person is to be permitted to detonate explosives unless another person is present; and (3) persons responsible for blasting operations at a blasting site are to be familiar with the blasting plan and site-specific performance standards to be attained. While OSM has decided to adopt variants of these requirements, they have been adopted in §§ 816.61(c) and 817.61(c) because they pertain to conduct at the blasting site and are not components of a certification program.

A commenter suggested deletion of proposed § 850.16 because it was viewed as redundant with the requirements of §§ 816.61 through 816.68. These requirements add specifics not included in the performance standards set forth in §§ 816.61 through 816.68 and 817.61 through 817.68 and therefore are not redundant.

New §§ 816.61(c)(1) and 817.61(c)(1) requires that no later than 12 months after a blaster certification program for a State has been approved by OSM, all blasting operations in that State must be conducted under the direction of a certified blaster. The time frame was inserted for two reasons. First OSM recognizes that it will take time for blaster certification programs to be approved. Second, even after the approval of the blaster certification program, a reasonable time has to be provided for blasters to get certified. Twelve additional months is considered sufficient. Prior to the time a blaster certification program for a State has been approved under 30 CFR Chapter VII, Subchapter, C, OSM is requiring that all blasting operations have to be conducted by competent experienced persons who understand the hazards involved. This is a continuation of previous §§ 816.61(c) and 817.61(c).

A commenter recommended inserting "personal" in proposed § 850.16(a) to modify the word "direction." This would require the physical presence of the certified blaster to give the direction to the shot firer. OSM has adopted the substance of this suggestion in §§ 816.61(c)(3) and 817.61(c)(3) to require

the presence of the certified blaster when the blast is detonated.

A commenter recommended that the provision in proposed § 850.15(c)(1) requiring a blaster to carry a valid certificate be reconsidered to allow that such certificates be on file in the mine office. OSM concurs with this recommendation, and has adopted language such that the certificate need not be carried by the blaster. However, proof of credentials should be readily available. Therefore, new §§ 816.61(c)(2) and 817.61(c)(2) require the blaster to either carry a valid certificate or have a copy of his or her certificate on file at the permit site.

Commenters objected to the provisions of proposed § 850.16(b), because the presence of more than one person would be dangerous. The commenters stated that only one person is necessary to detonate explosives. OSM disagrees. OSM's performance standards require (1) access control within the blast area, (2) blast recordkeeping, (3) warning and all clear signals and (4) assessing the blast site after the blast for hazards. OSM believes that all of these duties cannot be adequately performed by one person. Also, in the event one person is required to leave the site or is incapacitated, another person should be available to ensure that the proper procedures are followed. The intent of the rule is not to crowd the blast area with onlookers, but to protect the blaster and other people entering the mine site, and to ensure compliance with other performance standards as listed above. Therefore, a provision has been incorporated into §§ 816.61(c)(3) and 817.61(c)(3) which requires the presence of a blaster and at least one other person at the firing of each blast. OSM believes that the rule as written provides necessary backup responsibility and safety precautions.

IV. Procedural Matters

Executive Order 12291

The Department of the Interior (DOI) has examined these proposed rules according to the criteria of Executive Order 12291 (February 17, 1981). OSM has determined that this is not a major rule and does not require a regulatory impact analysis because it will impose only minor costs on the coal industry and coal consumers.

OSM received one comment from a State regulatory authority questioning how it could conclude that only minor costs will be imposed by the blaster certification program without soliciting the opinion of industry on the costs. OSM must consider the incremental impact of adopting the proposal or

allowing the previous final rule to remain in effect. Under Executive Order 12291 (February 17, 1981), OSM is required to assess the costs imposed by a proposed rule and to determine whether a regulatory impact analysis is required. After its own examination OSM has determined that this rule does not meet the criteria of a major rule.

Regulatory Flexibility Act

The DOI has also determined, pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, that these rules will not have significant economic impacts on a substantial number of small entities.

One commenter noted that OSM's proposed rule would require blaster certification, which had not been effectively required before, and questioned how that could "ease the regulatory burden on small coal operations in Appalachia." Under the rules in effect on the date of proposal all blasters would have eventually been required to obtain a certificate under a national testing program. Under the rules adopted today, State certificates, based on a State's specific requirements will be accepted. Because the requirements will be more localized, OSM expects that small entities, especially those in Appalachia, will be able to acquire certified blasters at less cost. In any case OSM believes it has properly concluded that the impacts of the proposal on small operations will not be "significant."

Paperwork Reduction Act

The information collection requirement contained in 30 CFR Part 850 has been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned clearance number 1029-0080. This approval is being codified under § 850.10.

The information required by 30 CFR Part 850 will be used by the regulatory authority in monitoring the implementation of the blaster certification programs.

National Environmental Policy Act

OSM has analyzed the impacts of these final rules in the Final Environmental Impact Statement OSM EIS-1: Supplement according to Section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4332(2)(C)). The final supplement is available in OSM's Administrative Record in Room 5315, 1100 L Street, NW., Washington, D.C., or by mail request to Mark Boster, Chief, Branch of Environmental Analysis, Room 134, Interior South Building, U.S. Department

of the Interior, Washington, DC 20240. This preamble serves as the record of decision under NEPA. This rule adopts the preferred alternative published in Volume III of the EIS which is analyzed in the EIS.

Agency Approval

Section 516(a) requires that, with regard to rules directed toward the surface effects of underground mining, OSM must obtain written concurrence from the head of the department which administers the Federal Mine Safety and Health Act of 1977, the successor to the Federal Coal Mine Health and Safety Act of 1969. OSM has obtained the written concurrence of the Assistant Secretary for Mine Safety and Health, U.S. Department of Labor.

List of Subjects

30 CFR Part 816

Coal mining, Environmental protection, Reporting requirements, Surface mining.

30 CFR Part 817

Coal mining, Environmental protection, Reporting requirements, Underground mining.

30 CFR Part 850

Explosives, Mining, Safety, Surface mining, Training program.

For the reasons stated above, 30 CFR Parts 816, 817 and 850 are amended as follows:

Dated: February 28, 1983.

William P. Pendley,

Acting Assistant Secretary for Energy and Minerals.

PART 816—PERMANENT PROGRAM PERFORMANCE STANDARDS—SURFACE MINING ACTIVITIES

1. Paragraph (c) of § 816.61 is revised to read as follows:

§ 816.61 Use of explosives: General requirements.

(c) *Blasters.* (1) No later than 12 months after the blaster certification program for a State required by Part 850 of this chapter has been approved under the procedures of Subchapter C of this chapter, all blasting operations in that State shall be conducted under the direction of a certified blaster. Before that time, all such blasting operations in that State shall be conducted by competent, experienced persons who understand the hazards involved.

(2) Certificates of blaster certification shall be carried by blasters or shall be on file at the permit area during blasting operations.

(3) A blaster and at least one other person shall be present at the firing of a blast.

(4) Persons responsible for blasting operations at a blasting site shall be familiar with the blasting plan and site-specific performance standards.

PART 817—PERMANENT PROGRAM PERFORMANCE STANDARDS—UNDERGROUND MINING ACTIVITIES

2. Paragraph (c) of § 817.61 is revised to read as follows:

§ 817.61 Use of explosives: General requirements.

(c) *Blasters.* (1) No later than 12 months after the blaster certification program for a State required by Part 850 of this chapter has been approved under the procedures of Subchapter C of this chapter, all surface blasting operations incident to underground mining in that State shall be conducted under the direction of a certified blaster. Before that time, all such blasting operations in that State shall be conducted by competent, experienced persons who understand the hazards involved.

(2) Certificates of blaster certification shall be carried by blasters or shall be on file at the permit area during blasting operations.

(3) A blaster and at least one other person shall be present at the firing of a blast.

(4) Persons responsible for blasting operations at a blasting site shall be familiar with the blasting plan and site-specific performance standards.

3. Subchapter M is revised to read as follows:

SUBCHAPTER M—TRAINING, EXAMINATION, AND CERTIFICATION OF BLASTERS

PART 850—PERMANENT REGULATORY PROGRAM REQUIREMENTS

Sec.	
850.1	Scope.
850.5	Definition.
850.10	Information collection.
850.12	Responsibility.
850.13	Training.
850.14	Examination.
850.15	Certification.

Authority: Pub. L. 95-87, 30 U.S.C. 1201 *et seq.*

§ 850.1 Scope.

This part establishes the requirements and the procedures applicable to the development of regulatory programs for training, examination, and certification of persons engaging in or directly

responsible for the use of explosives in surface coal mining operations.

§ 850.5 Definition.

As used in this part—

Blaster means a person directly responsible for the use of explosives in surface coal mining operations who is certified under this part.

§ 850.10 Information collection.

The information collection requirements contained in this part have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned clearance number 1029-0080. The information is being collected to meet the requirements of Sections 503, 515, and 719 of Pub. L. 95-87. This information will be used by the regulatory authority to assist in implementing the blaster certification program. The obligation to respond is mandatory.

§ 850.12 Responsibility.

(a) The regulatory authority is responsible for promulgating rules governing the training, examination, certification and enforcement of a blaster certification program for surface coal mining operations. When the regulatory authority is a State, the State shall submit these rules to the for approval under Parts 731 and 732 of this chapter.

(b) The regulatory authority shall develop and adopt a program to examine and certify all persons who are directly responsible for the use of explosives in a surface coal mining operation within 12 months after approval of a State program or implementation of a Federal program or within 12 months after the publication date of this rule, whichever is later. The Director may approve an extension of the 12-month period upon a demonstration of good cause.

§ 850.13 Training.

(a) The regulatory authority shall establish procedures which require that—

(1) Persons seeking to become certified as blasters receive training including, but not limited to, the technical aspects of blasting operations and State and Federal laws governing the storage, transportation, and use of explosives; and

(2) Persons who are not certified and who are assigned to a blasting crew or assist in the use of explosives receive direction and on-the-job training from a blaster.

(b) The regulatory authority shall ensure that courses are available to train persons responsible for the use of

explosives in surface coal mining operations. The courses shall provide training and discuss practical applications of—

(1) Explosives, including—

(i) Selection of the type of explosive to be used;

(ii) Determination of the properties of explosives which will produce desired results at an acceptable level of risk; and

(iii) Handling, transportation, and storage;

(2) Blast designs, including—

(i) Geologic and topographic considerations;

(ii) Design of a blast hole, with critical dimensions;

(iii) Pattern design, field layout, and timing of blast holes; and

(iv) Field applications;

(3) Loading blastholes, including priming and boosting;

(4) Initiation systems and blasting machines;

(5) Blasting vibrations, airblast, and flyrock, including—

(i) Monitoring techniques, and

(ii) Methods to control adverse

affects;

(6) Secondary blasting applications;

(7) Current Federal and State rules applicable to the use of explosives;

(8) Blast records;

(9) Schedules;

(10) Preblasting surveys, including—

(i) Availability,

(ii) Coverage, and

(iii) Use of in-blast design;

(11) Blast-plan requirements;

(12) Certification and training;

(13) Signs, warning signals, and site control;

(14) Unpredictable hazards, including—

(i) Lightning,

(ii) Stray currents,

(iii) Radio waves, and

(iv) Misfires.

§ 850.14 Examination.

(a) The regulatory authority shall ensure that candidates for blaster certification are examined by reviewing and verifying the—

(1) Competence of persons directly responsible for the use of explosives in surface coal mining operations through a written examination in technical aspects of blasting and State and Federal laws governing the storage, use, and transportation of explosives; and

(2) Practical field experience of the candidates as necessary to qualify a person to accept the responsibility for blasting operations in surface coal mining operations. Such experience shall demonstrate that the candidate possesses practical knowledge of blasting techniques, understands the hazards involved in the use of explosives, and otherwise has exhibited a pattern of conduct consistent with the acceptance of responsibility for blasting operations.

(b) Applicants for blaster certification shall be examined, at a minimum, in the topics set forth in § 850.13(b).

§ 850.15 Certification.

(a) *Issuance of certification.* The regulatory authority shall certify for a fixed period those candidates examined and found to be competent and to have the necessary experience to accept responsibility for blasting operations in surface coal mining operations.

(b) *Suspension and revocation.* (1) The regulatory authority, when practicable, following written notice and opportunity for a hearing, may, and upon a finding of willful conduct, shall suspend or revoke the certification of a blaster during the term of the certification or take other necessary action for any of the following reasons:

(i) Noncompliance with any order of the regulatory authority.

(ii) Unlawful use in the work place of, or current addiction to, alcohol, narcotics, or other dangerous drugs.

(iii) Violation of any provision of the State or Federal explosives laws or regulations.

(iv) Providing false information or a misrepresentation to obtain certification.

(2) If advance notice and opportunity for hearing cannot be provided, an opportunity for a hearing shall be provided as soon as practical following the suspension, revocation, or other adverse action.

(3) Upon notice of a revocation, the blaster shall immediately surrender to the regulatory authority the revoked certificate.

(c) *Recertification.* The regulatory authority may require the periodic reexamination, training, or other demonstration of continued blaster competency.

(d) *Protection of Certification.* Certified blasters shall take every reasonable precaution to protect their certificates from loss, theft, or unauthorized duplication. Any such occurrence shall be reported immediately to the certifying authority.

(e) *Conditions.* The regulatory authority shall specify conditions for maintaining certification which shall include the following:

(1) A blaster shall immediately exhibit his or her certificate to any authorized representative of the regulatory authority or the Office upon request.

(2) Blasters' certifications shall not be assigned or transferred.

(3) Blasters shall not delegate their responsibility to any individual who is not a certified blaster.

(Pub. L. 95-87, 30 U.S.C. 1201 *et seq.*)

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