WEST VIRGINIA

SECRETARY OF STATE

KEN HECHLER

ADMINISTRATIVE LAW DIVISION

Form #1

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OFFICE OF THE SECRETARY OF STATE

NOTICE OF PUBLIC HEARING ON A PROPOSED RULE

AGENCY: Board of Coal Mine Health and Safety TITLE NUMBER: 36

RULE TYPE: Administrative ; CITE AUTHORITY 22-6-4

AMENDMENT TO AN EXISTING RULE: YES XX NO ___

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 1

TITLE OF RULE BEING AMENDED: Rules And Regulations Governing Approvals And Permits Explosives And Ventilation For The Construction Of Shaft And/Or Slopes Operations In The State Of West Virginia

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: ___

TITLE OF RULE BEING PROPOSED: ___

DATE OF PUBLIC HEARING: September 6, 1990 TIME: 10:00 AM

LOCATION OF PUBLIC HEARING: Air Pollution Control Building
1558 Washington Street, East
Charelston, West Virginia 25311

COMMENTS LIMITED TO: ORAL ___, WRITTEN ___, BOTH XX

COMMENTS MAY ALSO BE MAILED TO THE FOLLOWING ADDRESS: Department of Energy
Attn: Tina Lilly
1615 Washington Street
Charleston, WV 25311

The Department requests that persons wishing to make comments at the hearing make an effort to submit written comments in order to facilitate the review of these comments.

The issues to be heard shall be limited to the proposed rule.

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL

Stephen A Edens

TITLE 36
LEGISLATIVE RULES
BOARD OF COAL MINE HEALTH AND SAFETY
SERIES 1

RULES AND REGULATIONS GOVERNING APPROVALS AND PERMITS EXPLOSIVES AND VENTILATION FOR THE CONSTRUCTION OF SHAFT AND/OR SLOPES OPERATIONS IN THE STATE OF WEST VIRGINIA

36.1.1. General.

1.1 Scope. --Rules and Regulations Amending Title 36, Series 1 Section 12.6 Permitting and Setting Forth The Approval For The Use Of Sheath Explosive Units For The Construction Of Shaft And/Or Slopes Operations In The State Of West Virginia.

1.2 Authority. -- W.Va. Code 22-6-4.

1.3 Filing Date. -- July 20, 1990

1.4 Effective Date. --

36.1.2. Surface Distributed Reclamation Bond

2.1. After the effective date of these rules and regulations, no shaft and/or slope shall be opened unless a surface disturbed reclamation bond in the amount of five hundred dollars ($500.00) per acre is submitted by the coal mine operator to the Department of Energy for the removal of unused surface structures, the sealing of abandoned shafts and slopes, and the reclamation of any land disturbed that does not result in an operational shaft and/or slope, the above mentioned bond shall go into a separate fund and must be submitted separately, when applicable is made for the issuance of a shaft and/or slope permit approval.

36.1.3. No Shaft And/Or Slope To Be Opened Without Prior Approval Of The Director Of Department Of Energy.

3.1. An Application for the sinking of a shaft and/or slope shall be filed by the coal mine operator for approval to the Director of the Department of Energy. All revisions to such approved application shall be resubmitted for approval to the Director of the Department of Mines. A shaft and/or slope permit application filed for approval with the Director of the Department of Energy shall include the following:

(a) The Name and address of the coal company and permit number, if such shaft and/or slope is an additional opening.

(b) A surface topographic map revealing the geographic location of the shaft and/or slope operation.

(c) A certified engineer's map revealing the locations of underground mining, oil, and/or gas wells and construction projects within five hundred (500) feet of the shaft and/or slope.

(d) A certified engineer's map showing the profile of the shaft and/or slope.

36.1.4. Information To Be Filed By Company Preforming Construction Work; Notices, Orders, And Decisions Received By Company Agent; Principal Officer In Charge; Permits To Be Obtained By Company Performing Construction Work.

4.1. Prior to beginning work in a shaft and/or slope the company performing such construction work shall file with the Director of the Department of Energy the name and address of the company performing the shaft and/or construction work.

4.2. Prior to beginning work in the shaft and/or slope after the permit approval has been obtained by the coal mine operator, the company performing such construction in a shaft and/or slope shall file with the Director of the Department of Energy the name and address of the person who controls or operates the shaft and/or slope. Any revisions in such names and address shall be promptly filed with the Director. Each operator of a shaft and/or slope shall designate a responsible official at such shaft and/or slope as the principal officer in charge of health and safety at such shaft and/or slope and such official shall receive a copy of any notice, order, or decision issued under these rules and regulations affecting such shaft and/or slope. In any case where the shaft and/or slope is subject to the control of any person not directly involved in the daily operations of the shaft and/or slope there shall be filed with the Director the name and address of such person and the name and address of a principal official of such person who shall have overall responsibility for the conduct of an effective health and safety program at any shaft and/or slope subject to the control of such person and such official shall receive a copy of any notice, order, or decisions issued affecting any such shaft and/or slope. The mere designation of a health and safety official under these rules and regulations shall not be construed as making such official subject to any penalty under the West Virginia Code.

4.2. The following permit approvals shall be obtained from the Director of the Department of Energy by the company performing construction work in a shaft and/or slope before such work is started:

(a) Stop the ventilation fan.

(b) Stop the ventilating fan when men ate in shafts and/or slopes.

(c) Use electrical machinery in shafts and/or slopes.

(d) Use electrical lights in shaft and/or slopes.

(e) Multiple shoot coal or rock in a shaft and/or slope.

(f) Use or store any non-p[permissible explosives or nonpermissible blasting devices at a shaft and/or slope.

(g) Hoist more than four (4) men at one time in buckets or cars in a shaft and/or slope.

(h) Use welder, torches, and like equipment in a shaft and/or slope.

36.1.5. Posting Of Permit Approvals.

5.1. At each shaft and/or slope there shall be maintained an office with a conspicuous sign designating it as the office of the shaft and/or slope, and a bulletin board as such office, in such office, in such manner that permit approvals required by these Rules and Regulations to be posted on the bulletin board shall be posted thereon, be easily visible to all persons desiring to read them.

36.1.6. Roof And Rib Control Programs And Plans.

6.1. (a) Each Operator shall undertake to carry out on a continuing basis a program to improve the roof control system of each shaft and/or slope and the means and measures to accomplish such system. A roof control plan and revisions thereof suitable to the roof conditions and mining systems of each shaft and/or slope and approved by the Director on the Department of Energy shall be adopted and set out in printed form before new operations are started. The safety committee of the miners of each shaft and/or slope where such committee exists shall be afforded opportunity to review and submit comments and recommendations to the Director and operator concerning the

development, modification or revision or such roof control plan. The plan shall show the type of support and spacing approved by the Director. Such plan shall be reviewed periodically, at least every six (6) months by the Director, taking into consideration all falls of roof or rib inadequacy of support or ribs. A copy of the plan shall be furnished to the Director of the Department of Energy or his authorized representative and shall be available to the miners and their representatives.

(b) The operator, in accordance with approved plan shall as the Director may prescribe, an ample supply of suitable materials of proper size with which to secure the roof there of all working places in a safe manner.

36.1.7. Use Of Authorized Explosives; Storage Or Use Of Unauthorized Explosives.

7.1. It shall be unlawful to have, use, or store any permissible explosives or non-permissible blasting devices at ay shaft and/or slope on the premises of the shaft and/or slope operation, without a permit of approval from the Director o the Department of Energy.

376.1.8. Surface Magazines For Explosives.

8.1 Separate surface magazines at least fifty (50) feet apart shall be provided for storage of explosives and detonators.

8.2. Surface magazines shall be provided with doors constructed of at least one-forth inch steel plate lined with two-thickness of wood or the equivalent, properly screened ventilators, and with no openings except for entrances and ventilation and shall be kept lock securely when unattended.

8.3. The area for a distance of at least twenty-five (25) feet in all directions shall be kept free of materials of a combustible nature.

8.4. Suitable warning signs shall be erected, so located that a bullet passing directly through the face of the sign will not strike the magazine.

8.5. The location of magazines shall not be less than three hundred (300) feet from any shaft and/or slope opening, occupied building or public roads, unless barricaded in a manner approved by the Director of the Department of Energy.

8.6. If magazines are illuminated electrically, the lamps shall be of vapor type, properly installed and wired.

8.7. Smoking and open lights shall be prohibited within twenty-five (25) feet of any surface magazine.

8.8. Surface magazines shall be located away from power lines, fuel storage areas and other possible sources of fire.

8.9. Surface magazines shall be electrically bonded and grounded if constructed of metal.

36.1.9. Transportation Of Explosives.

9.1. Individual containers used to carry permissible explosive or detonators shall be constructed of substantial non-conductive materials kept closed and maintained in good condition.

9.2. Any container used for transporting or storage of explosives shall be properly identified or marked.

9.3. Explosives and detonators shall be transported in the following manner: original and unopened cases, or in suitable individual containers.

9.4. If a large quantity of explosives and/or detonators are transported to a blasting site, than are needed, such explosives and/or detonators shall be returned immediately to the surface magazines, prior to blasting operations being performed.

36.1.10. Vehicles Used To Transport Explosives.

10.1. Vehicles used to transport explosives shall have substantially constructed bodies, no sparking metals, exposed in the cargo space, and shall be equipped with suitable sides and tail gates: Explosives shall not be poled higher than the side and end.

10.2. Vehicles containing explosives and/or detonators shall be maintained in good condition and shall be operated at a safe operating speed.

10.3. Vehicles containing explosives or detonators shall be posted with placard warning signs. Placards shall be located on all four sides of the motor vehicle. The placards shall contain letters four (4) inch minimum height, using 3/4 inch stroke.

10.4. Other material or supplies shall not be placed on or in a cargo space of a vehicle containing explosives or detonators.

10.5. Explosives or detonators shall be transported in separate vehicles unless separated by four (4) inches of hardwood or the equivalent.

10.6. Explosives or detonators shall be transported promptly without undue delay in transit.

10.7. Only necessary persons shall ride on or in vehicles containing explosives or detonators.

10.8. When vehicles containing explosives or detonators are parked, the brakes shall be set, the motive power shut off and the wheels blocked.

10.9. Vehicles containing explosives or detonators shall not be taken to a repair garage for any purpose.

10.10 Smoking and open lights shall be prohibited on vehicles transporting explosives or detonators.

36.1.11. Explosives, Handling, And Use.

11.1. Damages or deteriorated explosives or detonators shall be destroyed by a representative from a power company.

11.2. Light and power circuits shall be disconnected and removed from affected blasting area before charging and blasting.

11.3. No shots shall be fired until such place has been properly examined by an examiner-foreman and no shots shall be fired in any place where methane gas is in excess on one percent (1%) is detected with a permissible flame safety or other approved methane gas detector.

11.4. Blasting practices:

(a) All persons shall be removed from the shaft prior to blasting.

(b) All persons in a slope shall be given ample warning before shots are fired. Care shall be taken to determine that all persons are in the clear before shots are fired.

11.5. Blasting areas in shafts and/or slopes shall be covered with mats or other suitable material when the excavation is too shallow to retain blasted material.

11.6. Where it is impracticable to prepare primers in the blasting areas, primers may be prepared on the surface and carries into the shaft in a specially constructed, insulated, covered containers.

11.7. No other development work shall be performed in a shaft or at the face of a slope where drill holes are being charged and until after all shots have been fired.

11.8. Explosives shall be kept separate from detonators until charging is started.

11.9. Holes shall not be drilled where there is danger of intersecting a charged or misfired hole.

11.10 Only wooden or other nonsparking implements shall be used to punch holes in an explosive cartridge.

11.11 Tamping poles shall be blunt and squared at one end and made of wood, nonsparking materials, or of special approved plastic.

11.12 Electric detonators shall be kept shunted until they are being connected to the blasting line or wire into a blasting round.

11.13 Wired rounds shall be kept shunted until they are being connected to the blasting line.

11.14 Completely wired round shall be tested with a blasting galvanometer before connections are made to the blasting line.

11.15 Permanent blasting lines shall be properly supported, insulated and kept in good repair.

11.16 Electric detonators of different brands shall not be used i the same round.

11.17 A capped primer shall be prepared so that the detonator is contained securely and in completely embedded within the explosive cartridge.

11.18 No tamping shall be done directly no a capped primer.

11.19 Shots shall be fired promptly after charging. Mudcaps (adobes) or any other unconfined shot shall not be permitted in any shaft and/or slope.

11.20 Drill holes shall be stemmed from the charge to the collar of the hole unless more effective permissible stemming material or methods are approved by the Director of the Department of Energy.

11.21 Explosives shall not be removed from their original wrapper, except as possibility required under 11.1 of these regulations.

11.22 An independent circuit unless otherwise approved by the Director of the Department of Energy shall be provided for electric blasting. The circuit shall be well insulated and protected from sources of active or stray electrical currents.

11.23 Electrical currents for firing shots shall e adequate to insure detonation of an entire round.

11.24 Shooting cables shall be connected to the leg wires by the person firing the shot.

11.25 After blasting, all wires in the broken rock shall be carefully traced and search made for unexploded explosives.

11.26 Shooting shall not be performed where a danger exists from the shooting cable crossing high voltage power lines above a shaft, after shots are fired.

11.27 When electric detonators are used, charging shall be suspended and men withdrawn to a safe location on the approach of an electrical storm.

36.1.12. Misfires Of Explosives

12.1. When electric blasting caps have been used, men shall not return to misfired holes for at least fifteen (15) minutes.

12.2. Misfires shall be reported to the Examiner-Foreman and shall be disposed of safely before any work is performed in that blasting area.

12.3. After a misfire, the blasting cable shall be disconnected from the course of power and the battery ends short-circuit before electric connections are examined.

12.4. When a charge has misfired, the misfire shall be removed by:

(a) Firing separate holes at least two (2) feet away from the parallel to the misfired charge.

(b) Washing the stemming and the charge from the borehole with water.

(c) Inserting and firing a new primer after the stemming has been washed out.

12.5. The handling of a misfired shot shall be under the direct supervisions of and Examiner-Foreman.

12.6. Requirements For The Use Of Sheath Explosives:

(a) Not withstanding WV Code 22A-2-33(d) and 11.19 of these rules and regulations, Sheathed Explosives Units that are approved by the U.S. Bureau of Mines shall be permitted for use in West Virginia Coal Mine, provided however that the are used in accordance with subsections (a,b,c,d,e,f,g,h) as stated.

(b) Sheath Explosive Units shall be primed and placed in a position for firing only by a certified shot firer designated by mine management. To prime a Sheath Explosive Unit, the entire detonator shall be inserted into the well of the unit and be held securely in place.

(c) A separate instantaneous detonator shall be used to fire each Sheathed Explosive Unit.

(d) Use of transportation of handling and storage of Sheath Explosive shall be in accordance with the manufacturers specifications and applicable to State and Federal Law.

(e) Sheathed Explosive Units shall not be primed until immediately before units are placed where they are to be fired. A Sheath Explosive Unit shall not be primed if it is damaged or deteriorated.

(f) No more than three Sheath Explosive Units shall be fired at one time.

(g) No Sheath Explosive Unit shall be fired in contact with another Sheath Explosive Unit.

(h) Certified shot firers and all persons responsible for the use, transportation and handling of Sheathed Blasting Exposives shall be trained in the care and use of Sheath Explosives.

36.1.13. Examination - Records - Ventilation - Shaft And/Or Slopes.

13.1. All shafts and/or slopes shall be ventilated by mechanical ventilation equipment during development. Such equipment shall be examined before each shift and the quantity of air in the shaft and/or slope measured daily by a certified person and the results if such examination and tests recorded in a book approved by the Director of the Department of Energy.

36.1.14. Ventilation - Working Area.

14.1. While men are employed in a shaft and/or slope all shafts and/or slopes shall be ventilated adequately and continuously with fresh air. Air tubing shall deliver not less than nine thousand (9,000) feet per minute at the working areas or as much as necessary to remove noxious gases.

36.1.15. Ventilation - Fans.

15.1. Ventilation fans shall be:

(a) Installed on the surface.

(b) Installed in fireproof housing and connected to the shaft and/or slope opening with fireproof air duct.

(c) Designed to permit the reversal of the air current and located in an area which will prevent a recirculation of air from the shaft and/or slope or air contamination from any other source.

(d) Equipped with an automatic signal device designed to give an alarm in the event the fan slows or stops which can be seen or heard by any person on duty in the vicinity of the fan, except where fans are constantly attended.

(e) Offset not less than fifteen (15) feet from the shaft and/or slope.

36.1.16. Ventilation - Methods - Maintenance - Evacuation - Quality - Quantity.

16.1. Ventilating tubing shall be constructed to permit ventilation be either exhausting or blowing methods and when metal air ducts are used, they shall be grounded effectively to remove static and other electrical currents.

16.2. Ducts shall extend as close to the bottom as necessary to ventilate properly.

16.3. A certified person, designated by the operator, shall be assigned to maintained each ventilating system.

16.4. Unless a permit has been obtained from the Department of Energy, the fan shall be operated continuously when men are below the surface of a shaft and/or slope. Ant accidental stoppage or reduction in air-flow shall be corrected promptly; however, where repairs cannot be made immediately, development work below the surface shall be stopped and all the men are not needed to make necessary repairs shall be removed to the surface. If ventilation is not restored in fifteen (15) minutes all underground enployees shall be removed from the shaft and/or slope and the underground employees shall not return until ventilation is restored and the shaft and/or slope examined by a ceritified person holding a certificate to make a pre-shift examination.

16.5. No Superintendent-Examiner-Foreman shall permit any person to work where he is unable to maintain the quantity and quality of the air required. Provided, that such provisions shall not prohibit the employment of men to make place of employment safe.

16.6. All active underground working places in a shaft and/or slope shall be ventilated by a current of air containing not less than nineteen (19) and five tenths (5/10ths) percent oxygen and no harmful quantities of other noxious or poisonous gases.

SHEATHED EXPLOSIVES (SHAFT AND/OR SLOPE) (36.1.12.6)

Findings of Fact

1. The Coal Mine Safety and Technical Review Committee (Committee) is created pursuant to W. Va. Code 22-6-4c.

2. The purposes of the Committee are to:

(a) Assist the Board of Coal Mine Health and Safety (Board) in the development of technical data relating to mine safety issues, including related mining technology;

(b) Provide suggestions and technical data to the Board and propose rules and regulations with general mining industry applications;

(c) Accept and consider petitions submitted by individual mine operators or miners seeking site specific rulemaking pertaining to individual mines and make recommendations to the Board concerning such rulemaking; and

(d) Provide a forum for the resolution of technical issues encountered by the Board.

W. Va. Code 22-6-4c (1)(a)-(d).

3. The Committee may review any matter relative to mine safety and mining technology, and may pursue development and resolution of issues related thereto. The Committee may make recommendations to the Board for the promulgation of rules and regulations with general mining industry application. W. Va. Code 22-6-4c (5).

4. Any Committee adopted rule or regulation "shall not reduce or compromise the level of safety or protection below the level of safety or protection afforded by applicable statutes and regulations." W. Va. Code 22-6-4c (5).

5. The Board of Coal Mine Health and Safety (Board) is created pursuant to W. Va. Code 22-6-1 et seq.

6. The Board is empowered to:

(a) Review rules and regulations governing the coal mining industry in West Virginia and to revise the same or develop or promulgate new rules and regulations dealing with coal mine health and safety;

(b) Develop, promulgate and revise rules and regulations necessary to effectuate the purposes of W. Va. Code 22A-2-1 et seq.

W. Va. Code 22-6-4(b)(c)

7. The rules and regulations developed promulgated or revised by the Board may expand protections afforded by W.Va. Code 22A-1-1 et seq. notwithstanding specific language therein, and such rules and regulations may deal with subject areas not covered by W. Va. Code 22A-1-1 et seq. to the end of affording the maximum possible protection to the health and safety of miners. W. Va. Code 22-6-4(c)(1).

8. Any rule or regulation promulgated by the Board shall not reduce or compromise the level of safety of protection afforded miners below the level of safety of protection afforded by W. Va. Code 22-1-1 et seq. W. Va. Code 22-6-4(c)(2).

9. The Board shall consider all regulations proposed by the Committee and adopt or reject, without modification, except as approved by the Committee, such rules and regulations. W. Va. Code 22-6-4c (7).

10. The rules or regulations promulgated by the Board pursuant to the Committee's recommendations shall supersede the provisions of applicable statutes or regulations, notwithstanding the provisions of such applicable statutes and regulations. W. Va. Code 22-6-4c (5).

11. The United States Bureau of Mines developed a prototype nonincendive explosive rock-breaker charge that can be fired unconfined in underground bituminous coal mines without the danger of igniting a flammable atmosphere that might be present. The prototype explosive and experimentation are summarized in Bureau of Mines Technical Progress Report 118, entitled "Evaluation of a Sheathed Permissible Explosive Charge For Open Shooting in Flammable Atmospheres." Richard J. Mainiero and J. Edmund Hay, U. S. Department of the Interior, April 1982.

12. Incendivity tests in a gallery performed by the Bureau of Mines established that the prototype charge will not ignite a flammable methane-air atmosphere when fired.

13. The U.S. Bureau of Mines conducted additional testing regarding the use of sheathed explosives charges in breaking up large stones that can jam the feeder breaker or pan conveyors on longwalls and halt operations. Firing the sheathed charge at the face caused no significant damage to

longwall equipment and use of the charge represented an improvement in safety by eliminating the exposure of miners to the inherent hazards of the face for extended periods of time. These findings are summarized in Report of Investigation, 9294, entitled "Use of Sheathed Explosives Charges on Longwalls," Richard J. Mainiero and Lon D. Santis, U. S. Department of the Interior, 1990.

14. The U. S. Department of Labor promulgated a final rule, effective January 17, 1989, allowing the use of sheathed explosive units in underground coal mines under certain circumstances. See 30 C.F.R. 75.1314.

15. WV ADMINISTRATIVE REGULATIONS TITLE 36. SERIES 1. SECTION 11.19 Provides:

> Shots shall be fired promptly after charging. Mudcaps (adobes) or any other unconfined shot shall not be permitted in any shaft and/or slope.

16. Acting within its statutory authority, the Committee has proposed the following regulation for consideration by the Board:

36.1.12.6 Requirements for sheathed Explosives Units:

(a) Not withstanding subsection three (3) of these rules and regulations, sheathed explosives that are approved by the U.S. Bureau of Mines shall be permitted for use in West Virginia coal mines, provided however that they are used in accordance with subsections (a,b,c,d,e,f,g,h) as stated.

(b) Sheathed explosive units shall be primed and placed in a position for firing only by a certified shot firer designated by mine management. To prime a sheathed explosive unit, the entire detonator shall be inserted into the well of the unit and be held securely in place.

(c) A separate instantaneous detonator shall be used to fire each sheathed explosive unit.

(d) Use of transportation of handling and storage of sheath explosives shall be in accordance with the manufacturers specifications and applicable to State and Federal Law.

(e) Sheathed explosives units shall not be primed until immediately before units are placed where they are to be fired. A sheathed explosive unit shall not be primed if it is damaged or deteriorated.

(f) No more than three sheathed explosive units shall be fired at one time.

(g) No sheathed explosive unit shall be fired in contact with another sheathed explosive unit.

(h) Certified shot firers and all persons responsible for the use, transportation and handling of sheathed blasting explosives shall be trained in the care and use of sheathed explosives.

17. The Committee reviewed the issues regarding the use of sheathed explosives units in West Virginia underground coal mines, particularly the studies prepared by the U. S. Bureau of Mines and the Department of Labor's sheathed explosive unit regulations.

18. The Committee unanimously recommended that the use of sheathed explosive units in West Virginia underground coal mines in accordance with the guidelines set forth in proposed Regulation 36.1.12.6 will not reduce or compromise the level of safety or protection afforded by the applicable statutes and regulations.

Conclusions of Law

1. The proposed Regulation 36.1.12.6 will not reduce or compromise the level of safety or protection afforded miners below the level of safety or protection afforded by W. Va. Code 22-6-4 (c) (2).

2. The proposed Regulation 36.1.12.6 enhances safety by eliminating the exposure of miners to the inherent hazards of the face for extended periods of time.

3. The proposed Regulation 36.1.12.6 expands the protections afforded miners by W. Va. Code 22-6-4 (c) (1) and supersedes the aforementioned statue.

4. Notice of proposed Regulation 36.1.12.6 shall be issued by the Commissioner of the Department of Energy in accordance with W. Va. Code 22-6-4(c)(4)-(7).