

WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

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**NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED
BY THE WEST VIRGINIA LEGISLATURE.**

AGENCY: West Virginia Department of Energy TITLE NUMBER: 38

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IF YES, SERIES NUMBER OF RULE BEING AMENDED: 10

TITLE OF RULE BEING AMENDED: Rules and Regulations
Governing Roof Control

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: N/A

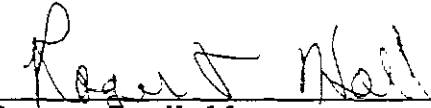
TITLE OF RULE BEING PROPOSED: N/A

THE ABOVE RULE HAS BEEN AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.

AUTHORIZATION IS CITED IN (house or senate bill number) S-397

SECTION 64-2-22(1)(15), PASSED ON March 12, 1988

THIS RULE IS FILED WITH THE SECRETARY OF STATE. THIS RULE BECOMES EFFECTIVE ON
THE FOLLOWING DATE: May 1, 1988



Roger A. Hall
Administrator

#28

WEST VIRGINIA LEGISLATIVE RULE
DEPARTMENT OF ENERGY
CHAPTER 22-1
SERIES 20

TITLE: RULES AND REGULATIONS GOVERNING ROOF CONTROL

Type of Rule:

Legislative

~~FILED IN THE OFFICE OF
THE SECRETARY OF STATE
THIS DATE June 23 1987
ADMINISTRATIVE LAW DIVISION~~

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WEST VIRGINIA LEGISLATIVE RULE
DEPARTMENT OF ENERGY
CHAPTER 22-1
SERIES 20

Title: Rules and Regulations Governing Roof Control

Type of Rule:

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WEST VIRGINIA LEGISLATIVE RULE
DEPARTMENT OF ENERGY
CHAPTER 22-1
SERIES 20

Title: Rules and Regulations Governing Roof Control

Type of Rule:

Section 1. General

- 1.1 Scope - This legislative rule establishes standards for approval of roof control plans in underground coal mines.
- 1.2 Authority - WV Code 22-1-15
- 1.3 Filing Date -
- 1.4 Effective Date -

Section 2. Definitions

- 2.1 All terms used in these regulations, not defined herein, shall have the meanings set forth in Section 1, Article 1, Chapter 22A of the Code.

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THIS DATE Jan 23, 1987
ADMINISTRATIVE LAW DIVISION

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SERIALIZED 5/17

Section 3 Roof Support

(a) Roof Control Programs and Plans

Each operator shall undertake to carry out on a continuing basis a program to improve the roof control system of each coal mine and the means and measures to accomplish such system. The roof and ribs of all active underground roadways, travelways, and working places shall be supported or otherwise controlled adequately to protect persons from falls of the roof or ribs. A roof control plan and revisions thereof suitable to the roof conditions and mining system of each coal mine and approved by the Commissioner shall be adopted and set out in printed form. The plan shall show the type of support and spacing approved by the Commissioner. Such plan shall be reviewed periodically, at least every 6 months by the Commissioner, taking into consideration any falls of roof or ribs or inadequacy of support of roof or ribs. No person shall proceed beyond the last permanent support unless adequate temporary support is provided or unless such temporary support is not required under the approved roof control plan and the absence of such support will not pose a hazard to the miners. A copy of the plan shall be furnished to the Commissioner or his authorized representative and shall be available to the miners and their representatives.

(b) Roof Control Program Requirements

Each operator shall adopt an adequate program for improving roof control systems. This program shall include a roof control plan, provisions for the training of miners, a history of all unintentional roof falls, and systematic evaluation of the effectiveness of the roof control system in use.

(c) Roof Control Plans

Each operator shall adopt a roof control plan suitable to the roof conditions and the mining system for all underground roadways, travelways including escapeways, and working places of each mine.

(d) Filing of Roof Control Plans

Roof control plans shall be filed with the Director of the Division of Mines and Minerals.

(e) Actions on Roof Control Plans

The Director of the Division of Mines and Minerals shall notify the operator in writing of the approval of a proposed roof control plan. If revisions are required for approval, the changes required will be specified and the operator will be afforded an opportunity to discuss the revisions with the Director of the Division of Mines and Minerals.

Section 4

General Information Required in Roof Control Plans

A roof control plan shall include the following information:

- (a) Name and address of the company.
- (b) Name and address of the mine.
- (c) Names and addresses of the responsible officials.
- (d) Area of the mine covered by the roof control plan.
- (e) A columnar section of the mine strata which shall:
 - (1) Show the name and thickness of the coalbed mined and any persistent partings.

- (2) Identify by type and show the thickness of each stratum (rock layer) up to and including the main roof over and for 10 feet under the coalbed.
- (3) Show the maximum cover over the mining area covered included in the roof control plan.
- (f) A description of the sequence of mining and installation of supports including temporary supports. The description shall include:
 - (1) Drawings on 8 1/2-inch by 11-inch paper or on paper folded to this size, showing the location of all roof, face and rib supports for each method of mining employed at the mines. The scale shall be specified and not less than 5 feet to the inch nor more than 20 feet to the inch. A legend explaining all the symbols used shall also be included on the drawings.
 - (2) A list of all roof support materials employed in the roof control system including, where applicable, the name of the manufacturer and its designation for the item. Prior approval shall be obtained before making any changes in the materials listed.

Section 5 Criteria for Approval of Roof Control Plans

Sections ⁶11 through ¹³18 set out the criteria by which the Director of the Division of Mines and Minerals will be guided in approving roof control plans on a mine-by-mine basis. Additional measures may be required. Roof control plans which do not conform to these criteria may be approved providing the operator can satisfy the Director of the Division of Mines and Minerals that the resultant roof conditions will provide no less than the same measure of protection to the miners.

Section 6 Criteria-Full Roof Bolting Plan

A full roof bolting plan is one in which roof bolts constitute the sole means of roof support at a face as part of the normal mining cycle.

- (a) Roof bolt assemblies should meet the following specifications:
 - (1) All components of the roof bolt assembly should comply with the American National Standards Institute, "Specifications for Roof Bolting Materials in Coal Mines".
 - (2) Roof bolts that provide support by creating a beam of laminated strata should be of a length that assures adequate anchorage, but in no case should the length of the bolt be less than 30 inches.
 - (3) Roof bolts that provide support by suspending the immediate roof from a stronger overlying strata should be of a length that permits anchoring at least 12 inches in the stronger strata.
 - (4) Bearing plates used directly against the mine roof should be not less than 6 inches square or of equivalent area. In exceptional cases where the mine roof is firm and not susceptible to sloughing, bearing plates 5 inches square or of equivalent area may be used.
 - (5) When wooden material such as planks, header blocks, and crossbars are used between the bearing plate and the roof for additional bearing, the use should be limited to short life openings (not to exceed 3 years) unless treated. Bearing plates used in conjunction with wooden materials should be not less than 4 inches square or of equivalent area.
 - (6) When washers are used, the shape of such washers should conform to the shape of roof bolt head and the shape of the bearing plate and such washers should be of sufficient strength to withstand loads up to the yield point of the roof bolt.

(b) Installation practices:

- (1) Finishing bits should be easily identifiable by sight or feel and the diameter should be within a tolerance of plus 0.030-inch minus zero of the manufacturers recommended hole diameter for the anchor used.
- (2) Torque ranges specified in the roof control plan should be capable of providing roof bolt loads to within plus or minus 1,000 pounds of 50 percent of either the yield point of the roof bolt being used or the anchorage capacity of the strata, whichever is less. In no case, however, should installed torques provide loads that exceed the yield point of the roof bolt being used or the anchorage capacity. Relationship for determining roof bolt load for torque applied are as follows:

Cone Neck or Self-Centering Roof Bolt

5/8-inch expansion type roof bolt--
30 lbs. of load per ft.-lb. of torque.

3/4-inch expansion type roof bolt--
30 lbs. of load per ft.-lb. of torque.

Standard Roof Bolt Without Hard Washer
or Lubricant

5/8-inch expansion type roof bolt--
50 lbs. of load per ft.-lb. of torque.

3/4-inch expansion type roof bolt--
40 lbs. of load per ft.-lb. of torque.

Standard Roof Bolt With Hard Washer
or Lubricant

5/8-inch expansion type roof bolt--
60 lbs. of load per ft.-lb. of torque.

3/4-inch expansion type roof bolt--
60 lbs. of load per ft.-lb. of torque.

- (3) Each operator should outline and describe roof bolt testing procedures to be followed in the roof control plan. The procedures to be followed should include:
- (i) Providing and maintaining an approved, calibrated torque wrench on each roof bolting machine. An approved wrench should be one that will indicate the actual torque on the roof bolt.
 - (ii) Designating a qualified person to spot-check torques on at least 25 percent of the roof bolts immediately after the working place has been fully bolted. If the majority of the installed torques fall outside the recommended range, the remaining roof bolts in the working place should be tested. If the majority of the torques still fall outside the recommended range, necessary adjustments in the equipment used for tightening the roof bolts should be made immediately. If, after adjustments are made and required torques are not achieved, supplementary support such as additional roof bolts, longer roof bolts with adequate anchorage, posts, cribs, or crossbars should be installed.
 - (iii) On a daily basis, spot-check torques on at least 10 percent of the roof bolts from the outby corner of the last open crosscut to the face and record the results. This record should show the number of roof bolts tested, number of roof bolts below the recommended range, and the number of roof bolts above the recommended range. If results show that a majority of the roof bolts are not maintaining at least 70 percent of the minimum torque required (50 percent if plates bear against wood), or have exceeded the maximum required torque by 50 percent, supplementary support such as additional roof bolts, longer roof bolts with adequate anchorage, posts, cribs, or crossbars should be installed.

until a review of the adequacy of the roof control plan is made by an authorized representative of the Commissioner.

- (4) Devices should be used to compensate for the angle when roof bolts are installed at angles greater than 5° from the perpendicular to the roof line.
- (c) Roof bolting pattern:
 - (1) Roof bolt spacing either lengthwise or crosswise should not exceed 3 feet.
 - (2) Roof bolts should be installed as close as possible to, but not more than 5 feet from, the face before starting conventional cutting or a continuous miner run.
 - (3) Roof bolts should be installed as close as possible to, but not more than 5 feet from, the face before starting conventional cutting or a continuous miner run.
- (d) Openings should not exceed 20 feet in width where roof bolting is the sole means of roof support.

Section 7 Criteria--Conventional Roof Control Plan

A conventional roof control plan is one in which installation of materials other than roof bolts such as metal or wood posts, jacks, or cribs in conjunction with wooden cap blocks (half headers), footers (sills), planks and beams are installed as the sole means of roof support at a face as part of the normal mining cycle.

- (a) Support materials should meet the following specifications:
 - (1) Posts should be of solid, straight grain wood with the ends sawed square and free from defects which would affect their strength.

- (2) The diameter of round posts should not be less than one inch for each 15 inches of length, but in no case should the diameter be less than $\frac{1}{4}$ inches; split posts should have a cross-sectional area equal to that required for round posts to equivalent length.
 - (3) Wooden cap blocks and footers should have flat paralleled sides and be not less than 2 inches thick, 4 inches wide and 12 inches long.
 - (4) Wooden crossbars and planks should be straight and of solid wood. Crossbars should have a minimum cross-sectional area of 24 square inches and the minimum thickness should be 3 inches. Planks should have a minimum cross-sectional area of 8 square inches and a minimum thickness of 1 inch.
 - (5) Cribbing material should be of wood having parallel flat sides. In no case should the crib be less than 30 inches square.
- (b) Installation practices:
- (1) No more than two wooden wedges should be used to install a post.
 - (2) Posts should not be installed under roof susceptible to sloughing or under disturbed roof without a wooden cap block, plank, or crossbar between the post and the roof.
 - (3) Posts should be installed tight and on solid footing.
 - (4) Blocks used for lagging between the roof and wooden crossbars, planks, or metal bars should be spaced so that the load on the supports will be equally distributed.
 - (5) Cap blocks should be used between jacks and the roof.

- (c) Conventional support pattern:
 - (1) Spacing of roadway roof supports should not exceed 5 feet.
 - (2) Width of roadways should not exceed 14 feet on the straight and 16 feet on the curves.
 - (3) Roof supports should be installed to within 5 feet of the uncut face; however, the supports nearest the face may be removed to facilitate the operation of face equipment if equivalent temporary support is installed prior to removal.
 - (4) When an opening is no longer needed for storing supplies or for travel of equipment the roof at the entrance of all such openings along travelways should be supported by extending the post line across the opening.
- (d) Openings should not exceed 20 feet in width where the roof is supported solely by conventional means.

Section 8 Criteria--Combination Roof Control Plan

For a plan where both roof bolts and conventional supports are used for roof control at the face, the criteria for a Full Roof Bolting Plan and a Conventional Roof Control Plan should apply with the following modifications:

- (a) Any place being driven over 20 feet in width should be supported by a Combination Roof Control Plan.
- (b) The roadway should be limited to 16 feet in width on both the straight and the curves to within 10 feet of the uncut face.
- (c) A row of posts should be set for each 5 feet of space between the roadway posts and the ribs.

- (d) Openings should not exceed 30 feet in width.

Section 9 Criteria--Spot Roof Bolting Plan

Spot roof bolting may be used only as a supplement to the approved roof control plan at random locations where adverse roof conditions are encountered. Where spot roof bolting is used, the criteria in Section 11 (a) and (b) of the Full Roof Bolting Plan should apply. In addition, roof bolts should be installed in accordance with roof conditions, but in no case should spacing exceed 4 feet lengthwise and crosswise. Roof bolting should begin under safe roof and continue for the length of the adverse roof condition until safe roof is again encountered.

Section 10. Criteria--Pillar Recovery Plan

Any reduction in pillar size during second mining shall be considered pillar recovery. Second mining is construed to be intentional retreat mining. The following criteria are applicable to pillar recovery roof control plans:

- (a) Sections 11, 12 and 13 should apply depending on whether the pillar recovery plan calls for conventional support or a combination of conventional support and roof bolting.
- (b) During development, the size and shape of the pillars should be dictated by the depth of cover, height of coal and other conditions associated with the coalbed. The smallest dimension of the pillar should be no less than 20 feet.
- (c) Pillar splits and lifts should not exceed 20 feet in width.
- (d) A minimum of two rows of breaker posts or the equivalent should be installed on not more than 4-foot centers across each opening leading into pillared areas and such posts should be installed before production is started. Such posts should be

installed before production is started. Such posts should be installed near the breakline between the lift being started and the gob.

- (e) A row of roadside-radium (turn) posts or the equivalent should be installed on not more than 4-foot centers leading into pillar splits, including secondary splits in slabs, wings or fenders.
- (f) The width of the roadway leading from the solid pillars to a final stump (pushout) should not exceed 14 feet. At least two rows of posts or their equivalent should be set on each side of the roadway on not more than 4-foot centers. Only one open roadway leading to a final stump (pushout) should be permitted.
- (g) Before full pillar recovery is begun in areas where roof bolts were used as the sole means of roof support and openings are more than 16 feet wide, supplementary support should be installed. Supplementary supports should consist of at least one row of posts installed on either side on not more than 4-foot centers lengthwise and limit the width of all roadways to 16 feet. These supports should be extended from the entrance to the split for at least one full pillar outby the pillar in which the split is being made.
- (h) The following criteria should apply to open end pillaring:
 - (1) At least two rows of breaker posts or their equivalent should be installed between the lift being started and the gob on not more than 4-foot centers before the initial cut is made and should be extended to within 7 feet of

the face. The width of the roadway should not exceed 14 feet.

- (2) If the roof in open end pillaring has a tendency to hang, falls should be made, or cribs installed in addition to the breakline posts between the active lift and the hanging area. The cribs should be set not more than 8 feet apart. Heavy duty hydraulic jacks set at centers close enough to give equivalent support may be substituted for cribs, if such jacks are removed remotely.

Section 1f. Criteria--Special Roof Control Plan

A special roof control plan should be adopted and followed when support is installed on an intermittent basis but only at predetermined locations such as at intersections, or when equipment is especially designed to provide either natural or artificial support as the coal is mined. Special roof control plans also cover experimental installations using new devices, materials, and methods for roof support.

- (a) The following criteria should apply to mining systems employing continuous mining machines designed to give natural roof support by means of an arched roof:
 - (1) Where coal roof other than that included in the arch is necessary for roof support, positive means should be used to assure that at least 6 inches of coal roof is maintained at all times. In the event that less than 6 inches of coal roof is encountered, all work in such places should be stopped, the continuous miner withdrawn, and artificial roof support installed. A roof control plan for the support to be installed in such cases must be submitted for approval.
 - (2) During the development of four-way intersections, the roof between the tangents of the arches in the entry or room should be supported with artificial roof supports prior to the development of the fourth entrance to such intersection.

- (3) All areas where the width of openings is to exceed the normal cutting width of the continuous mining machine should be supported with additional support as specified in the roof control plan before any other work is performed in the place.
- (4) All areas where the arch is broken, except planned areas such as those covered in paragraphs (a) (2) and (3) of this section should be considered as having unsupported roof and such roof should have artificial roof supports installed prior to any other work being performed in the area.
- (b) The following criteria should apply to mining methods using continuous miners with integral roof bolting equipment where roof bolts are the sole means of roof support:
 - (1) The distance between roof bolts should not exceed 8 feet crosswise, unless additional material such as wooden planks, wooden beams, or metal straps are installed in conjunction with the roof bolts. Roof bolts installed more than 8 feet but less than 9 feet apart should be supplemented with a wooden plank at least 2 inches thick by 8 inches wide or its equivalent. Roof bolts installed more than 9 feet but less than 10 feet apart should be supplemented with a wooden plank at least 3 inches thick by 8 inches wide or its equivalent. Roof bolts should not be installed more than 10 feet apart.
 - (2) Work in intersections, pillar splits, or other such places should not be started until additional support has been installed where the roof is supported with only two roof bolts crosswise. Such support should reduce bolt spacing to maximum of 5 feet.

- (3) The maximum opening width where the roof is supported by only two roof bolts crosswise should be 16 feet.
- (4) The distance between the last row of bolts and the face should not exceed the distance from the head of the machine to the integral roof bolting equipment before starting a continuous miner run.
- (c) Before any new support materials, devices or systems are used as a sole means of roof support, their effectiveness should be demonstrated by experimental installations in areas approved by an authorized representative of the Commissioner.

Section 12 Criteria--Temporary Support

- (a) The following criteria should apply to the installation of temporary supports in faces:
 - (1) In areas where permanent artificial support is required temporary support should be used until such permanent support is installed.
 - (2) Only those persons engaged in installing temporary support should be allowed to proceed beyond the last permanent support until such temporary supports are installed.
 - (3) A minimum of two temporary supports should be installed on not more than 5-foot centers and within 5 feet of the rib or face when work is being done between such support and the nearest rib or face. At least four temporary supports should be installed on not more than 5-foot centers when work is being done in other areas of the face in by the last permanent support. No person should be permitted to proceed beyond temporary support in any direction unless such support is within 5 feet of the rib, face, or permanent support.
- (b) During rehabilitation work such as rebolting, installing crossbars, or other permanent roof support, taking down loose roof and cleaning up

falls of roof, temporary roof supports should be installed and the following criteria should apply:

- (1) Where rebolting work is being done or crossbars are being installed, at least two rows of temporary supports on not more than 5-foot centers should be installed across the place so that the work in progress is done between the installed temporary supports and permanent roof supports installed in sound roof. The distance between the permanent supports and the nearest temporary supports should not exceed 5 feet.
- (2) Tools used to take down loose material should be of a design that will enable workmen to perform their duties from a safe position without exposure to falling material. Where loose material is being taken down, a minimum of two temporary supports on centers of not more than 5 feet should be set between the workmen and the material if such work cannot be done from an area supported by permanent roof supports.
- (3) Where roof falls have occurred a minimum of four temporary supports shall be set before starting any work in and around the affected area. These supports should be located so as to provide the maximum protection for persons working in the area.

Section 13 Criteria--Roof Support Recovery

Any operator who intends to recover roof supports should include a detailed plan for such recovery in the roof control plan. The following criteria should apply to recovery procedures:

- (a) Recovery should be done only under the direct supervision of a mine foreman, assistant mine foreman, or section foreman.
- (b) Only experienced miners should be assigned to such work.

- (c) The person supervising recovery should make a careful examination and evaluation of the roof and designate each support to be recovered.
- (d) Supports should not be recovered in the following areas:
 - (1) Where roof fractures are present or there are other indications of the roof being structurally weak.
 - (2) Where any second mining has been done.
 - (3) Where torque readings on roof bolts or visual observations of conventional support indicate excessive loading.
- (e) Two rows of temporary supports on not more than 4-foot centers, lengthwise and crosswise, should be set across the place, beginning not more than 4 feet in by the support being recovered. In addition, at least one temporary support should be provided as close as practicable to the support being recovered.
- (f) Temporary supports used should not be recovered unless recovery is done remotely from under roof where the permanent supports have not been disturbed and two rows of temporary support, set across the place on 4-foot centers, are maintained at all times between the workmen and the unsupported area.
- (g) No one should be permitted to enter any area from which supports have been recovered.
- (h) Entrances to the areas from which supports are being recovered should be marked with danger signs placed at conspicuous locations. The danger signs will suffice as long as further support recovery work is being done in the area. If the recovery work is completed or suspended for 3 or more days, the areas should be barricaded.

Section 14 Mining Methods

The method of mining followed in any coal mine shall not expose the miner to unusual dangers from roof falls caused by excessive widths of rooms and entries or faulty pillar recovery methods.

Section 15 Widths of Openings

- (a) The method of mining shall provide widths of openings and pillar dimensions compatible with effective roof control. These widths and dimensions shall be incorporated into the roof control plan submitted for approval.
- (b) Where excessive widths result from poor mining practices, additional roof support shall be installed before any travel or other work is done in such area. If excessive widths or openings are a result of coal sloughing, additional support shall be installed and the mining system reevaluated to determine changes that are necessary to minimize such occurrences.

Section 16 Pillar Recovery Method

In addition to those criteria set forth in Section 15 which may be required in the roof control plan, the following shall apply to pillary recovery:

- (a) The overall pillar recovery system shall be designed to minimize the possibility of outbursts or squeezes. The manner and sequence of recovery shall be included in the roof control plan submitted for approval.
- (b) Where full pillar recovery is being done, extraction shall be such as to allow total caving of the main roof in the pillared area.
- (c) During partial pillar recovery sufficient coal shall be left in place to support the main roof to the extent that the possibility of undue forces overriding the working places will be minimized.

- (d) A combination of full and partial pillar recovery shall not be conducted on the same pillar line.
- (e) If full extraction of pillars is being done and physical conditions such as standing water, adverse roof conditions, and falls of roof, or law requirements concerning oil and gas wells or surface subsidence dictate that some pillars of coal are to be left in place, a sufficient amount of coal shall be left to support the main roof so as to minimize the possibility of undue forces overriding the working places.
- (f) Where full recovery of pillars is planned, the design of the pillars shall be compatible with the planned method of extraction.
- (g) Pillaring methods shall eliminate pillar points and pillars that project in by the breakline.
- (h) When recovering adjacent pillars left and right from the same opening, mining shall be completed in one such pillar lift and the openings posted off with at least two rows of breaker posts on not more than 4-foot centers before operations are started in the second pillar.

Section 17. Longwall Mining

Longwall mining shall be considered as a modification of the open-end method of pillar extraction and the support system for the longwall shall be approved on an individual basis.

Section 18. Roof Support Materials

The operator, in accordance with the approved plan, shall provide at or near each working face and at such other locations in the coal mines as the Commissioner may prescribe an ample supply of suitable materials of proper size with which to secure the roof of all working places in a safe manner. Safety posts, jacks, or other approved devices shall be used to protect the workmen when

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VIRGINIA SKEEN
Special Assistant

(Plus all the volunteer
help we can get)

TO: Roger Hall - Emergency

FROM: RICH O. HARTMAN, DIR. ADMIN. LAW DIV.

DATE: _____

THE ATTACHED RULE(S) RECENTLY FILED BY YOUR AGENCY HAVE BEEN ENTERED INTO THE COMPUTER. PLEASE REVIEW AND PROOF AND RETURN WITH ANY CORRECTIONS. IF THERE ARE NO CORRECTIONS PLEASE SIGN THIS MEMO AND RETURN TO THIS OFFICE. YOU WILL BE SENT A FINAL VERSION OF YOUR RULE(S) FOR YOUR RECORDS.

PLEASE RETURN EITHER THE CORRECTED RULE OR THIS FORM WITHIN TEN (10) WORKING DAYS OF THE DATE YOU RECEIVED THIS REQUEST. CALL IF YOU HAVE ANY QUESTIONS.

Title 38, Series 10

THE ATTACHED RULE(S) HAVE BEEN REVIEWED AND ARE CORRECT.

SIGNED: Roger K Hall

TITLE OF PERSON SIGNING: Emergency Administrator HT

DATE: June 27, 1988

THE ATTACHED RULE(S) HAVE BEEN REVIEWED AND NEEDS CORRECTED. THESE CORRECTIONS HAVE BEEN MARKED.

SIGNED: _____

TITLE OF PERSON SIGNING: _____

DATE: _____