

1 COMMITTEE SUBSTITUTE

2 FOR

3 **Senate Bill No. 603**

4 (By Senators Kirkendoll, Stollings, Miller, Facemire, Cann,
5 Edgell, Green, D. Hall, McCabe, Unger, Kessler (Mr. President),
6 Plymale and Jenkins)

7 _____
8 [Originating in the Committee on Energy, Industry and Mining;
9 reported February 18, 2014.]
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12 A BILL to amend and reenact §22A-2-43 of the Code of West Virginia,
13 1931, as amended, relating to testing for the presence of
14 methane in underground mines; clarifying when handheld testing
15 devices shall be used; requiring automatic de-energization of
16 an extraction apparatus where a machine-mounted methane
17 monitor indicates a methane concentration of one and five-
18 tenths percent; and removing the requirement that the Board of
19 Coal Mine Health and Safety promulgate a legislative rule
20 defining the term "sustained period".

21 *Be it enacted by the Legislature of West Virginia:*

22 That §22A-2-43 of the Code of West Virginia, 1931, as amended,
23 be amended and reenacted to read as follows:

24 **ARTICLE 2. UNDERGROUND MINES.**

25 **§22A-2-43. Actions to detect and respond to excess methane.**

1 ~~The following actions are required to detect and respond to~~
2 ~~excess methane:~~

3 (a) ~~Hand-held testing required.~~ Required testing and
4 operational procedures. -- Unless otherwise specified herein,
5 testing conducted pursuant to the provisions of this section is to
6 be performed with hand-held testing devices. In any mine, no
7 electrical equipment or permissible diesel-powered equipment may be
8 brought in by the last open crosscut until a qualified person tests
9 for methane. If one percent or more methane is present, the
10 equipment may not be taken into the area until the methane
11 concentration is reduced to less than one percent. Thereafter,
12 subsequent methane examinations shall be made at least every twenty
13 minutes while any electrical or diesel-powered equipment is present
14 and energized.

15 (b) *Location of tests.* -- Tests for methane concentrations
16 under this section shall be made at least twelve inches from the
17 roof, face, ribs and floor.

18 (c) *Working places and intake air courses.* --

19 (1) When one percent or more methane is present in a working
20 place or an intake air course, including an air course in which a
21 belt conveyor is located or in an area where mechanized mining
22 equipment is being installed or removed:

23 (A) Except intrinsically safe atmospheric monitoring systems
24 (AMS), electrically powered equipment in the affected area shall be
25 de-energized and other mechanized equipment shall be shut off.

26 (B) Changes or adjustments shall be made at once to the

1 ventilation system to reduce the concentration of methane to less
2 than one percent.

3 (C) No other work shall be permitted in the affected area
4 until the methane concentration is less than one percent.

5 (2) When one and five-tenths percent or more methane is
6 present in a working place or an intake air course, including an
7 air course in which a belt conveyor is located or in an area where
8 mechanized mining equipment is being installed or removed:

9 (A) Except for the mine foreman, assistant mine foreman or
10 individuals authorized by the mine foreman or assistant mine
11 foreman, all individuals shall be withdrawn from the affected area.
12 If a federal or state mine inspector is present in the area of the
13 mine where one and five-tenths percent or more of methane is
14 detected, the federal or state mine inspector and the miners'
15 representative, if any, may remain in the area with the mine
16 foreman, assistant mine foreman or other individuals authorized by
17 the mine foreman or assistant mine foreman.

18 (B) Except for intrinsically safe AMS, electrically powered
19 equipment in the affected area shall be disconnected at the power
20 source.

21 (d) *Return air split.* --

22 (1) When one percent or more methane is present in a return
23 air split between the last working place on a working section and
24 where that split of air meets another split of air or the location
25 at which the split is used to ventilate seals or worked-out areas,
26 changes or adjustments shall be made at once to the ventilation

1 system to reduce the concentration of methane in the return air to
2 less than one percent.

3 (2) When one and five-tenths percent or more methane is
4 present in a return air split between the last working place on a
5 working section and where that split of air meets another split of
6 air or the location where the split is used to ventilate seals or
7 worked-out areas, except for the mine foreman, assistant mine
8 foreman or individuals authorized by the mine or assistant mine
9 foreman, all individuals shall be withdrawn from the affected area.
10 If a federal or state mine inspector is present in the area of the
11 mine where one and five-tenths percent or more of methane is
12 detected, the federal or state mine inspector and the miners'
13 representative, if any, may remain in the area with the mine
14 foreman, assistant mine foreman or other individuals authorized by
15 the mine foreman or assistant mine foreman.

16 (3) Other than intrinsically safe AMS, equipment in the
17 affected area shall be de-energized, electric power shall be
18 disconnected at the power source and other mechanized equipment
19 shall be shut off.

20 (4) No other work shall be permitted in the affected area
21 until the methane concentration in the return air is less than one
22 percent.

23 (e) *Return air split alternative.* --

24 (1) The provisions of this paragraph may apply if:

25 (A) The quantity of air in the split ventilating the active
26 workings is at least twenty-seven thousand cubic feet per minute in

1 the last open crosscut or the quantity specified in the approved
2 ventilation plan, whichever is greater.

3 (B) The methane content of the air in the split is
4 continuously monitored during mining operations by an AMS that
5 gives a visual and audible signal on the working section when the
6 methane in the return air reaches one and five-tenths percent and
7 the methane content is monitored as specified in the approved
8 ventilation plan.

9 (C) Rock dust is continuously applied with a mechanical duster
10 to the return air course during coal production at a location in
11 the air course immediately outby the most inby monitoring point.

12 (2) When one and five-tenths percent or more methane is
13 present in a return air split between a point in the return
14 opposite the section loading point and where that split of air
15 meets another split of air or where the split of air is used to
16 ventilate seals or worked-out areas:

17 (A) Changes or adjustments shall be made at once to the
18 ventilation system to reduce the concentration of methane in the
19 return air below one and five-tenths percent.

20 (B) Except for the mine foreman, assistant mine foreman or
21 individuals authorized by the mine foreman or assistant mine
22 foreman, all individuals shall be withdrawn from the affected area.
23 If a federal or state mine inspector is present in the area of the
24 mine where one and five-tenths percent or more of methane is
25 detected, the federal or state mine inspector and the miners'
26 representative, if any, may remain in the area with the mine

1 foreman, assistant mine foreman or other individuals authorized by
2 the mine foreman or assistant mine foreman.

3 (C) Except for intrinsically safe AMS, equipment in the
4 affected area shall be de-energized, electric power shall be
5 disconnected at the power source and other mechanized equipment
6 shall be shut off.

7 (D) No other work shall be permitted in the affected area
8 until the methane concentration in the return air is less than one
9 and five-tenths percent.

10 (f) *Bleeders and other return air courses.* --

11 The concentration of methane in a bleeder split of air
12 immediately before the air in the split joins another split of air,
13 or in a return air course other than as described in subsections
14 (d) and (e) of this section, shall not exceed two percent.

15 (g) *Machine mounted methane monitors.* --

16 (1) Approved methane monitors shall be installed and
17 maintained on all face cutting machines, continuous miners,
18 longwall face equipment and other mechanized equipment used to
19 extract coal or load coal within the working place.

20 (2) The sensing device for methane monitors on longwall
21 shearing machines shall be installed at the return air end of the
22 longwall face. An additional sensing device also shall be
23 installed on the longwall shearing machine, downwind and as close
24 to the cutting head as practicable. An alternative location or
25 locations for the sensing device required on the longwall shearing
26 machine may be approved in the ventilation plan.

1 (3) The sensing devices of methane monitors shall be installed
2 as close to the working face as practicable.

3 (4) Methane monitors shall be maintained in permissible and
4 proper operating condition and shall be calibrated with a known
5 air-methane mixture at least once every fifteen days and a record
6 of the calibration shall be recorded with ink or indelible pencil
7 by the person performing the calibration in a book prescribed by
8 the director and maintained on the surface. Calibration records
9 shall be retained for inspection for at least one year from the
10 date of the test. To assure that methane monitors are properly
11 maintained and calibrated, the operator shall use persons properly
12 trained in the maintenance, calibration and permissibility of
13 methane monitors to calibrate and maintain the devices.

14 (h) *Automatic de-energization of extraction apparatus.* --

15 When the methane concentration at any machine-mounted methane
16 monitor reaches one percent, the monitor shall give a warning
17 signal. The warning signal device of the methane monitor shall be
18 visible to a person operating the equipment on which the monitor is
19 mounted. The methane monitor shall automatically de-energize the
20 extraction apparatus on the machine on which it is mounted, but not
21 the machine as a whole to facilitate proper mining procedures,
22 when:

23 (1) The methane concentration at any machine-mounted methane
24 monitor reaches one and ~~twenty-five one hundredths~~ five-tenths
25 percent for a sustained period; or

26 (2) The monitor is not operating properly.

1 The machine's extraction apparatus may not again be started in
2 that place until the methane concentration measured by the methane
3 monitor is less than one percent.

4 ~~(i) Compliance schedule for machine refit.--~~

5 ~~Within one hundred twenty days of the effective date of the~~
6 ~~amendments to this section, the Board of Coal Mine Health and~~
7 ~~Safety shall promulgate legislative rules pursuant to article~~
8 ~~three, chapter twenty-nine-a of this code establishing calibration~~
9 ~~procedures, defining the term "sustained period" for purposes of~~
10 ~~implementing this section, and establishing a compliance schedule~~
11 ~~setting forth the time frame in which all new and existing face~~
12 ~~cutting machines, continuous miners, longwall face equipment and~~
13 ~~other mechanized equipment used to extract coal or load coal within~~
14 ~~the working place shall be refitted with methane monitors.~~
15 ~~Enforcement of subsections (g) and (h) of this section shall not~~
16 ~~commence until after the time frame is established by rule.~~

(NOTE: The purpose of this bill is to improve coal mine health and safety in West Virginia. The bill requires automatic de-energization of an extraction apparatus where a machine-mounted methane monitor indicates a methane concentration of one and five-tenths percent. The bill also removes the requirement that the board of Coal Mine Health and Safety promulgate a legislative rule defining the term "sustained period".

Strike-throughs indicate language that would be stricken from the present law, and underscoring indicates new language that would be added.)