Workplace Examinations

Underground Coal Mines
Responsibility for Safety

Congress declared in the Federal Mine Safety & Health Act of 1977 the first priority of the mining industry must be the health and safety of the miner.
Responsibility for Safety

The mine operator along with the assistance of miners have the primary responsibility to prevent the existence of unsafe and unhealthful conditions and practices in mines.

Workplace examinations are required to alert mine management to any changes in the mine ventilation system and other potentially dangerous mining conditions or hazards before accidents can happen.
Responsibility for Safety

β Each mine examiner’s task is to conduct a proper and complete examination to accomplish an accurate assessment of conditions within the mine.

β Recording results of exams along with performing follow-up action to eliminate noted hazards should be routine and is necessary for accomplishing a safe mine.
Workplace Examinations

Purpose:

Primary means to determine effectiveness of mine ventilation system and detect hazards such as accumulations of methane.

Proper examinations protect against mine fires and explosions; oxygen deficient atmospheres; accumulations of other harmful gases; and other hazards that may endanger miners.
Workplace Examinations

β Types of exams training will focus on:

β Pre-shift
β Supplemental
β On-shift
β Weekly
β Electrical 75.512
Preshift Examination

30 CFR 75.360

(A)(1) except as provided in (a)(2), a certified person shall make a preshift exam within 3 hours proceeding the beginning of any 8 hour interval during which any person is scheduled to work or travel underground

The Mine operator establishes the 8 hour interval
Preshift - Exam Periods

<table>
<thead>
<tr>
<th>Shift times</th>
<th>Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a to 5:00p</td>
<td>4a - 7a to 3p</td>
</tr>
<tr>
<td>4:30p to 2:30a</td>
<td>12n - 3p to 11p</td>
</tr>
<tr>
<td>12a to 8a</td>
<td>8p - 11p to 7a</td>
</tr>
</tbody>
</table>
Preshift Examination

75.360 (a) (1) continued:

No person except certified examiners may enter or remain underground unless a preshift exam has been completed for established 8 hour interval.
Preshift Examination

75.360 (a)(2)

Certified pumpers may conduct their own examination provided the examination is conducted in the work area before any other work is performed.

A record of all hazardous conditions found by the pumper shall be made and retained in accordance with 75.363.
The final rule maintains the existing level of safety. A complete examination by a certified person is still required and the examination will be conducted closer to the time that work is performed in the area.

As with other examination requirements, no one may accompany the pumper during the examination.
The pumper may only perform an examination in lieu of a preshift for himself or herself.

It is important to note that the examination performed by the pumper under paragraph (a)(2) is not acceptable if other persons have been scheduled to enter the area.
If, however, after the beginning of the preshift examination, persons are assigned to enter the area, the pumper may perform a supplemental examination for other persons in accordance with Sec. 75.361, provided that the certified pumper is designated by the operator to conduct such examinations.
Preshift Examination
(30 CFR 75.360 (B))

β Examine for hazardous conditions

β Test for methane and oxygen deficiency

β Determine if air is moving in its proper direction
HAZARDOUS CONDITIONS

The first priority of all workplace examinations is for the person conducting the examination to examine for hazardous conditions.

For the purpose of workplace examinations, hazards are considered to be conditions that are likely to cause death or bodily injury to persons exposed to such conditions.
Preshift Examination

Examine for hazardous conditions

- Loose roof and ribs
- Excessive levels of methane
- Oxygen deficiency
- Damaged, missing or improperly installed ventilation controls on the section
- Accumulations of loose coal or coal dust
- Rock dust not applied in required quantities
- Electrical hazards
- Fire hazards from damaged or improperly operating belt conveyors
- Other obvious fire hazards
Preshift Examination

β Air quantity (face)
  β 3,000 cfm where coal is being cut, mined, drilled for blasting, or loaded
  β Greater quantity if necessary (specified in ventilation plan)
  β Minimum quantity may be required in plan for other working places or faces
  β Quantity determined at or near face end of curtain or tubing
    β unless extends beyond last row of permanent supports -- then determined behind curtain or in tubing at or near last row of permanent supports
  β Machine mounted dust collectors or diffuser -- specify operating volume in ventilation plan
Preshift Examination

- Air quantity (last open crosscut and pillar line)
  - 9,000 cfm
    - Greater quantity required in plan
    - Minimum applies to sections not operating but capable of producing coal by simply energizing equipment

- Air quantity (ventilation maintained during installation and removal of mechanized mining equipment)
  - Approved Ventilation plan specifies
    - Quantity
    - Locations
    - Ventilation controls required
When the Examiner Finds a Hazardous Condition:

- Correct or Post with a Conspicuous Danger Sign.

- If hazardous condition creates an imminent danger, withdraw all miners from affected area except those needed to correct the hazard.
Preshift Examination

β Test for methane
  β Tests to be made at least 12 inches from roof, face, ribs and floor
  β Working places, intake air courses (includes belt entries), areas where equipment is being installed or removed

β Air quality
  β 19.5 percent oxygen minimum
Actions for excessive methane.

- Tests for methane concentrations under this section shall be made at least 12 inches from the roof, face, ribs, and floor.

- Working places and intake air courses.
  - When 1.0 percent or more methane is present in a working place or an intake air course, including an air course in which a belt conveyor is located, or in an area where mechanized mining equipment is being installed or removed--

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

    Changes or adjustments shall be made at once to the ventilation system to reduce the concentration of methane to less than 1.0 percent; and

    No other work shall be permitted in the affected area until the methane concentration is less than 1.0 percent.
Actions for excessive methane.

- When 1.5 percent or more methane is present in a working place or an intake air course, including an air course in which a belt conveyor is located, or in an area where mechanized mining equipment is being installed or removed--

  Everyone except those persons referred to in §104(c) of the Act shall be withdrawn from the affected area; and

  Except for intrinsically safe AMS, electrically powered equipment in the affected area shall be disconnected at the power source.
Actions for excessive methane.

ß Return air split.

- When 1.0 percent or more methane is present in a return air split between the last working place on a working section and where that split of air meets another split of air, or the location at which the split is used to ventilate seals or worked-out areas changes or adjustments shall be made at once to the ventilation system to reduce the concentration of methane in the return air to less than 1.0 percent.
Actions for excessive methane.

- **Return air split**
  - When 1.5 percent or more methane is present in a return air split between the last working place on a working section and where that split of air meets another split of air, or the location where the split is used to ventilate seals or worked-out areas—

    Everyone except those persons referred to in §104(c) of the Act shall be withdrawn from the affected area;

    Other than intrinsically safe AMS, equipment in the affected area shall be de-energized, electric power shall be disconnected at the power source, and other mechanized equipment shall be shut off; and

    No other work shall be permitted in the affected area until the methane concentration in the return air is less than 1.0 percent.
B Actions for excessive methane.

β Bleeders and other return air courses.

The concentration of methane in a bleeder split of air immediately before the air in the split joins another split of air, or in a return air course other than as described in paragraphs (c) and (d) of this section, shall not exceed 2.0 percent.
Preshift Examination

β Locations

β Roadways, travelways, track haulageways where persons are scheduled to work or travel

β Belt conveyors used to transport persons and entries where these conveyors are located
The person conducting the pre-shift examination shall check the refuge alternative for damage, the integrity of the tamper-evident seal and the mechanisms required to deploy the refuge alternative, and the ready availability of compressed oxygen and air.
Preshift Examination

Persons Ride This Belt
Belt Preshift Required
Preshift Examination - Locations

β Working sections and areas where mining equipment is being installed or removed, if anyone scheduled to work

β Scope shall include working places, approaches to worked-out areas and ventilation controls on these sections and in these areas

β Exam shall include tests of roof, face and rib conditions on these sections and areas
Preshift Examination - Locations

β Approaches to worked-out areas along intake air courses and at the entries used to carry air into worked-out areas if intake air that passes these approaches is used to ventilate working sections where persons are scheduled to work

β Exam of approaches shall be made in intake air courses immediately inby and outby each entry used to carry air into worked-out areas

β Exam of entries shall be conducted at a point immediately inby the intersection of each entry with the intake air course
Air Passing Approaches to Worked-Out Area

X = Pre-shift Examination Locations For 75.360(b)(4)
Preshift Examination - Locations

β Seals along intake air courses where air is used to ventilate working sections

β Entries and rooms developed after Nov. 15, 1992, more than 20 feet deep (off intake airways) without a crosscut connection or more than 2 crosscuts deep without permanent ventilation controls

β Entries and rooms developed after November 15, 1992, and developed more than 2 crosscuts off an intake air course without permanent ventilation controls where intake air passes through or by these entries or rooms to reach a working section where anyone is scheduled to work during the oncoming shift
Working Section

Sealed Area

Seals Preshift Required

Preshift Examination
Preshift Examination

40’ Deep
Permanent Control
Preshift Not Required

Rooms or Entries More Than
2 Crosscuts Deep

Intake To Section
Preshift Examination - Locations

- Underground electrical installations except for pumps listed in 75.340 (b)(2) through (b)(6) and compressors if energized during the shift
  - Transformer stations
  - Battery charging stations
  - Substations
  - Rectifiers
  - Water pumps (permanent)
Preshift Examination - Locations

Locations where trolley or trolley feeder wires will be or will remain energized during the oncoming shift
Other areas where work or travel during the oncoming shift is scheduled prior to the beginning of the preshift examination.
β High spots along intake air courses where methane is likely to accumulate, if equipment will be operated in area during shift
75.360 Preshift Examination

Roadways and track haulage ways must be examined 3 hours immediately preceding each shift. This examination must include tests for methane in all high cavities where methane could accumulate. While traveling haulage roads, travel ways, or belt conveyors, if high cavities in the roof are observed, the inspector should look for some method that has been provided for the preshift examiner to make such tests. Examples are ladders, tubes, methane detectors with probes, etc. Lack of some method to safely make such tests would be a good indication that tests were not being made or not properly being made. This could require issuing appropriate citations or orders.
Preshift Examination

High Spots
Cavity Areas
Preshift Examination

Preshift examiner shall also determine the volume of air entering each of the following areas if anyone is scheduled to work in the areas during oncoming shift:

- In the last open crosscut on the working section and in areas where mining equipment is being installed or removed.
Preshift Examination

- At the intake end of any pillar line

  - Single split - intake entry furthest from return air course, immediately outby the first open crosscut outby the line of pillars being mined

  - Split system - intake entries of each split immediately inby the split point
Preshift Examination

β On each longwall or shortwall in the intake entry or entries at the intake end of the longwall or shortwall face immediately outby the face and the velocity of air at each end of the face at locations specified in the approved ventilation plan
30 CFR 75.360 Certification

At each working place examined, the person conducting the exam shall certify by initials, date and time that the examination was made.

In areas required to be examined outby the working section, examiner shall certify by initials, date and time at enough locations to show entire area has been examined.
Dates, times and initials should be placed frequently and conspicuously to insure that the entire area has been examined.
Check each box that is a hazardous condition.

☐ The line curtain in the No. 2 Entry has fallen down and 1.2% of methane detected in the face area.

☑ Pump located 2 crosscuts outby the face of No. 4 Entry is hot and smoking and has an exposed electrical conductor in the cable.

☐ Water accumulating, 3” to 6” deep in roadway dip 2 breaks outby the face of No. 4 Entry.

☑ One break outby the face of the No. 3 Entry the heads of mechanical roof bolts have been sheared off by shuttle cars for a distance of 16 feet (6 bolt heads sheared off).

☐ Supplemental Roof Support Material Five (5) Crosscuts outby section

☐ Both shuttle cars have been left loaded with coal
Preshift - Recordkeeping

β Make a record of results of each preshift examination including

β Hazardous conditions and their locations

β Results and locations of air and methane measurements

  β Air measurements
  β Methane measurements shall be recorded as a percentage of methane
Preshift - Recordkeeping

Record of preshift shall be made on the surface before any persons (other than certified persons making examinations) enter the mine.

Record shall be made by:
- The person who made the exam, or
- A person designated by the operator.
If record is made by the designated person, the examiner shall verify by initials and date the record by or at the end of the shift which the exam was made.

The record shall include actions taken to correct hazardous conditions found during the preshift.
Preshift - Recordkeeping

All preshift and corrective actions records shall be countersigned by the mine foreman or equivalent official by the end of the mine foreman’s or equivalent official’s next regularly scheduled work shift.

The records required by this section shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration.
**PRESHIFT-MINE EXAMINERS REPORT**

**Date of Examination:** January 28, 1998  
**Section or Area Examined:** 2 East Mains -002

**Time of Examination:** 4:00 a.m. to 6:15 a.m.  
**Was this report phoned outside?** Yes __ X __ No ____

**By whom:** ____________________  
**Time:** _______ a.m./p.m.

**Report received by:** Jim Smith

**Violations and other Hazardous Conditions Observed and Reported**

<table>
<thead>
<tr>
<th>Location</th>
<th>Violations or Hazardous Condition</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td>Line Curtain Down 1.2% CH4 in face area</td>
<td></td>
</tr>
<tr>
<td>#3</td>
<td>Outby corner of intersection six roof bolts dislodged</td>
<td>Area Dangered off until bolts can be replaced</td>
</tr>
<tr>
<td>#4</td>
<td>Two breaks outby face pump hot with exposed conductor</td>
<td>Pump de-energized and removed from mine</td>
</tr>
<tr>
<td>#5 R</td>
<td>Curtain on Floor</td>
<td>Hung Curtain</td>
</tr>
</tbody>
</table>

**Air Measurements**

<table>
<thead>
<tr>
<th>Location</th>
<th>CH4</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCC</td>
<td>O.1%</td>
<td>Proper Direction</td>
</tr>
<tr>
<td>21,000CFM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** 2 breaks outby Face of #4, water accumulating, needs pumped. Used last roll of curtain on section. Section track needs advanced. #5 right production hole needs permanent ventilation control installed. #5 Intake seal examined, 0.0% CH4, 20.3% Oxygen.

This is to certify that: (a) This section of the mine was properly examined by me, (b) all dangers, (C) all violations of the West Virginia Mining laws and the Federal Coal Mine Health and Safety Act of 1969, and other unsatisfactory conditions and practices observed by me are listed in this report.

**Signed by:** ____________________  
**Preshift-Mine Examiner**  
**Certification No:** ____________________  
**Assistant Foreman**  
**Certification No:** ____________________  

**Countersigned:** ____________________  
**Mine Foreman**  
**Certification No:** ____________________  
**Assistant Foreman**  
**Certification No:** ____________________
**PRESHIFT-MINE EXAMINERS REPORT**

**Date of Examination**: January 28, 1998  
**Section or Area Examined**: 2 East Mains -002  
**Time of Examination**: 4:00 a.m. to 6:15 a.m.

Was this report phoned outside? Yes [X] No

Report received by: Jim Smith

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**Dangerous or other Hazardous Conditions Observed and Reported**

<table>
<thead>
<tr>
<th>Location</th>
<th>Hazardous Condition</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td>Line Curtain Down 1.2 % CH4 in face area</td>
<td>Put curtain up methane cleared</td>
</tr>
<tr>
<td>#3</td>
<td>Outby corner of intersection six roof bolts dislodged</td>
<td>Area Dangered off until bolts can be replaced</td>
</tr>
<tr>
<td>#4</td>
<td>Two breaks outby face pump hot with exposed conductor</td>
<td>Pump de-energized, tagged out of service and removed from mine left at end of track JS Hung Curtain</td>
</tr>
<tr>
<td>#5 R</td>
<td>Curtain on Floor</td>
<td></td>
</tr>
</tbody>
</table>

**Location CH4 Direction**

<table>
<thead>
<tr>
<th>Location</th>
<th>CH4</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCC</td>
<td>0.1%</td>
<td>proper CFM</td>
</tr>
</tbody>
</table>

**Remarks**: 2 breaks outby Face of #4, water accumulating, needs pumped. Used last roll of curtain on section. Supplemental Roof Support Material Five (5) crosscuts outby section. #5 right production hole needs permanent ventilation control installed. #5 Intake seal examined, 0.0 % CH4, 20.3% Oxygen.

This is to certify that this section of the mine was properly examined by me. Hazardous or dangerous conditions or practices observed by me are listed in this report.

Signed by: Preshift-Mine Examiner

Countersigned: Mine Examiner

Assistant Foreman

Mine Foreman
§ 75.361

Supplemental Examination
Supplemental Examination

30 CFR 75.361

Within 3 hours of anyone entering an area in which a preshift has not been made for that shift, a certified person shall

- Examine the area for hazardous conditions
- Determine whether air is traveling in proper direction and volume
- Test for methane and oxygen deficiency
Supplemental

- Certification
- At each working place examined, the person making the exam shall certify by initials, date, and time that the examination was made.
- In areas outby, examiner shall certify by initials, date and time at enough locations to show that the entire area has been examined.
On-shift Examination

30 CFR 75.362 (a)(1)

During each shift, a certified person shall examine each section where anyone is assigned to work and any area where mining equipment is being installed or removed
On-shift Examination

Examination shall be made for hazardous conditions and methane and oxygen deficiency, and determine that air is moving in the proper direction.

During each shift coal is produced, a certified person shall examine for hazardous conditions along each belt conveyor haulageway.
Onshift Examination Summary, Drawing No. 01

Check Section
Ventilation Controls
And
Air Moving in Proper Direction

CH₄ & O₂

Loading Point
Onshift Examination Summary, Drawing No. 02

Check Section Ventilation Controls And Air Moving in Proper Direction

CH₄ & O₂

Loading Point
On-shift Examination

β 75.362 (a)(2)

β At the beginning of the shift before production starts, or within 1 hour of the shift change, if there is no interruption in production, a person designated by the operator shall conduct an examination to ensure compliance with the dust control parameters specified in the ventilation plan.
Dust Parameters

These parameters include:

- An evaluation of the Continuous Mining Machine for air quantities and velocities, required number of sprays, water pressures and flow rate, excessive leakage in the water delivery system, section ventilation and control device placement and maintenance of the scrubber system if provided.

- This examination also includes, permissibility for the dust collection systems of the Roof Bolting Machine and its ventilating air current.
On-shift Examination

The on-shift examiner shall determine:

- Volume of air in the last open crosscut on each working section and where mechanized mining equipment is being installed or removed.

- Volume of air at the intake end of the pillar line.
On-shift Examination

The on-shift examiner shall determine

- Volume of air on a longwall/shortwall, including where longwall/shortwall is being installed or removed
  - in the intake end of longwall or shortwall

- Velocity of air at each end of the longwall/shortwall face at locations specified in approved ventilation plan
On-shift Examination

- Tests for methane shall be made by a qualified person:
  - At the start of the shift at each working place before equipment is energized
  - Immediately before equipment is energized, taken into, or operated in a working place; and
  - At 20 minute intervals, or more often if required in the approved ventilation plan
On-shift Examination

- These methane tests shall be made at the face from under permanent roof support, using extendable probes or other acceptable means.

- When mining has been stopped more than 20 minutes, methane tests shall be conducted prior to start up of equipment.
On-shift Examination

- Auxiliary fans and tubing shall be inspected frequently

- During each producing shift, at intervals not exceeding 4 hours, test for methane shall be made in each return split of air from each working section between the last working place ventilated by the split and the junction of the return air split with another air split, seal, or worked-out area
Test for Methane in Return

Fan
Hazardous Conditions
Posting/correcting/recording

30 CFR 75.363

Any hazardous condition found by the mine foreman or equivalent mine official, assistant mine foreman, or equivalent mine official or other certified persons designated by the operator for the purpose of conducting examinations of this subpart D, shall be posted with a conspicuous danger sign where any one entering the areas would pass.
Hazardous Conditions; Posting, correcting and recording

A hazardous condition shall be corrected immediately or the area shall remain posted until the condition is corrected

If the condition creates an imminent danger, everyone, except those persons referred to in section 104(c) of the act, shall be withdrawn from the affected area.
Hazardous Conditions
Posting/correcting/recording

Only persons designated by the operator to correct or evaluate the condition may enter the posted area.

At or by the completion of each shift during which an on-shift exam was conducted, a record of hazardous conditions found or reported and their locations shall be made in a book kept on the surface for this purpose.
The record shall be made by the person doing the examination or by a person designated by the operator.

If record is made by a person other than examiner, the examiner shall verify the record by initials and date.
The record shall also include corrective actions taken and shall be countersigned by the mine foreman or equivalent mine official.

The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration.
Check each box that is a **hazardous condition**.

- Methane reading in the immediate return is 1.2 %
- Coal spillage at tailpiece. Tail roller turning in it.

Methane-Oxygen reading at Intake seal: Methane - 0.2%, Oxygen - 20.1%.

- Water in Number 4 Entry 2 breaks out by the working face 8 to 12 inches deep
- Two bolts sheared off in by last open crosscut in the Number 2 Entry
### Daily and Onshift Report

**Mine Foreman or Assistant**

**Date:** 01-28-1998  
**Shift:** Day  
**Area or Section:** East Mains-002

#### Violations or Other Hazardous Conditions Observed and Reported

<table>
<thead>
<tr>
<th>Location</th>
<th>Violation or Hazardous Condition</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.#1 Return Entry</td>
<td>1.2% Methane</td>
<td>Tighten check curtains cleared Methane</td>
</tr>
<tr>
<td>2.#2 inby last open break</td>
<td>2 roof bolts sheard off</td>
<td>Replaced roof bolts</td>
</tr>
<tr>
<td>3 #3 outby last open break</td>
<td>Outby corner six roof bolts sheard off</td>
<td>Replaced roof bolts</td>
</tr>
<tr>
<td>4. Tailpiece</td>
<td>Coal spillage around tail roller</td>
<td>Cleaned up coal spillage</td>
</tr>
<tr>
<td>5. Two breaks outby face of #4</td>
<td>8 to 12 inches of water</td>
<td>Set pump, pumping water</td>
</tr>
</tbody>
</table>

#### Examinations for Methane in Working Places

<table>
<thead>
<tr>
<th>Location</th>
<th>Time</th>
<th>Methane</th>
<th>Location</th>
<th>Time</th>
<th>Methane</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. #4 Face</td>
<td>8:00 a.m.</td>
<td>0.2%</td>
<td>6.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. #5 Face</td>
<td>9:58 a.m.</td>
<td>0.0%</td>
<td>7.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. #1 Face</td>
<td>11:00 a.m.</td>
<td>0.4%</td>
<td>8.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. #2 Face</td>
<td>0.3%</td>
<td></td>
<td>9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. #3 Face</td>
<td>2:12 p.m.</td>
<td>0.2%</td>
<td>10.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Examination for Methane in Return Aircourses

<table>
<thead>
<tr>
<th>Location</th>
<th>Time</th>
<th>Methane</th>
<th>Location</th>
<th>Time</th>
<th>Methane</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.#1</td>
<td>7:15 a.m.</td>
<td>0.2%</td>
<td>4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 #1</td>
<td>11:05 a.m.</td>
<td>1.2%</td>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.#1</td>
<td>2:30 p.m.</td>
<td>0.3%</td>
<td>6.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of bolts tested  
Number of bolts above range  
Number of bolts below range  
If majority of bolts tested in any working place falls outside approved torque range, state what action was taken

**Remarks:** (Statement as to General Conditions of Mine or Area of Mine)  
Examine intake seal, Methane 0.2%, Oxygen 20.1% Performed  
supplemental exam on 1 right section and retrieved pump, cleaned feeder at end of shift.

**Assistant Mine Foreman**  
Cert NO.  
**Mine Foreman-Mine Manager**  
Cert NO.  
**Superintendent or Assistant**
Weekly Examination
(30 CFR 75.364)

β **Worked-out areas**

β At least every 7 days, a certified person shall examine the deepest penetration of non-pillared worked out areas, measuring methane and oxygen concentrations at locations approved in the mine ventilation plan and determine if the air is moving in the proper direction in the area.

β Air quantity measurements shall also be made where the air enters and leaves the worked-out areas, unless an alternate method is approved in the ventilation plan.
Weekly Examination

- At least every 7 days, a certified person shall evaluate the effectiveness of bleeder systems as follows
  - Measurements of methane, oxygen, and air quantity and a test to determine if the air is moving in the proper direction
    - Where air enters the worked-out area
    - Immediately before the air enters a return split of air
Weekly Examination Summary, Drawing Number 2

Bleeder evaluation point (outlet)

Bleeder evaluation point (inlet)
Weekly Examination

3 At least one entry of each set of bleeder entries used as part of a bleeder system under 75.334 shall be traveled in its entirety. Measurements of methane, oxygen concentrations and air quantities and a test to determine if the air is moving in its proper direction shall be made at the measurement point locations specified in the mine ventilation plan to determine the effectiveness of the bleeder system.

3 An alternate method of evaluation for (a)(2)(i) and (iii) may be approved in the ventilation plan to determine the effectiveness of the bleeder system.
At least every 7 days, an examination for hazardous conditions shall be made by a certified person at the following locations:

- In one entry of each intake air course(s) in its entirety
- In one entry of each return air course(s) in its entirety
- In each longwall or shortwall travelway in its entirety
- At each seal along the return and bleeder air courses and at each seal along the intake air courses not preshifted
Weekly Exam - Hazardous Conditions

- In each escapeway so that the entire escapeway is traveled
- Working section(s) not preshifted during the previous 7 days
- At each water pump not examined during a preshift examination conducted during the previous 7 days
Weekly Examination
Measurements and Tests
At least every 7 days, a certified person shall

- Determine the volume of air entering main intakes and each intake split
- Determine the volume of air and test for methane
  - In the last open crosscut
  - In the return of each split of air immediately before it enters the main returns, and
  - Where the air leaves the main returns
- Test for methane in the return entry nearest each set of seals immediately after the air passes the seals
Weekly Examination
Measurements and Tests
Weekly Examination

β Hazardous conditions shall be corrected immediately. If the condition creates an imminent danger, everyone except those persons necessary to correct the condition shall be withdrawn to a safe area.

β The weekly examination may be conducted at the same time as the preshift or on-shift examinations.

β The weekly examination is not required during any 7 day period in which no one enters the mine. Except for certified persons required to make examinations, no one shall enter any underground area of the mine if a weekly examination has not been completed within the previous 7 days.
Weekly Examination

**Certification**

*Date and time of the examination and initials of the examiner shall appear at enough locations to show the entire area has been examined.*

*Dates, times and initials should be placed frequently and conspicuously to insure that the entire area has been examined.*

**Recordkeeping**

*After a partial or complete weekly examination, a record of hazardous conditions, locations, corrective action taken, and the results and locations of air and methane measurements shall be made.*
All electric equipment shall be frequently examined, tested, and properly maintained by a qualified person to assure safe operating conditions. The examination and test shall be done at least weekly.

When any potentially dangerous condition is found on electric equipment, such equipment shall be removed from service until such condition is corrected.
A record of such examinations shall be kept and made available to an authorized representative of the Secretary and to the miners in such mine.
75.512

Requires that each individual piece of electric equipment, including locomotives, personnel carriers, electric track switches and derails, compressors, car hauls, conveyor units, pumps, rock-dusting machines, battery-powered equipment and permissible equipment, be examined and tested.
The required examinations and tests must be thorough enough to insure that the electric equipment has not deteriorated through neglect, abuse or normal use into an unsafe condition that could result in a shock, fire, or other hazard to the miners.
The record of examinations of electric equipment required by this Section shall list separately each individual piece of electric equipment in the mine.

If the qualified person making the required examinations and test finds any potentially dangerous condition, that person shall immediately cause the defective equipment to be removed from service until such condition is corrected.
POSSIBLE KNOWING/WILLFUL VIOLATION REVIEW FORM
(Confidential, Pre-decisional Information)

MINE ID

MINE NAME

COMPANY NAME

Citation/Order No. Date

ACCIDENT INFORMATION:
Was this violation associated with an accident which caused an injury? YES ☐ NO ☐ If yes: Fatal? ☐ Non-fatal? ☐

REVIEW CRITERIA: (Attach supplemental information if needed)
1. Did the condition or practice cited create the presence of a high degree of risk to the health and/or safety of miners? Yes ☐ No ☐
   a) Who was exposed to the hazard? (Name and Occupation)
   b) How were they exposed to the hazard?
   c) When and over what period of time did the exposure occur?
   d) Is this first hand information? Yes ☐ No ☐
      If not, who provided the information? (Name and Occupation)

2. Did the operator or agent have actual knowledge, or reason to know, of the facts or conditions constituting the violation? Yes ☐ No ☐
   a) Who had this knowledge? (Name and Title)
   b) How was this knowledge evidenced?
   c) Is this first hand information? Yes ☐ No ☐
      If not, who provided the information? (Name and Occupation)

3. Any other pertinent information:

INSPECTOR'S CONCLUSION:
Based on this review, does this appear to be a possible knowing and/or willful violation of the Act or mandatory health or safety standard? Yes ☐ No ☐
Inspector AR Number: ___________ Signature: ___________ Date: ___________

Supervisor: Do you agree with the inspector's conclusion? Yes ☐ No ☐
Signature: ___________ Date: ___________

POSSIBLE RECOMMENDED ACTIONS:
A. Conduct a special investigation. ☐
C. No further action. ☐
Assistant District Manager: Recommendation: ______ (A or C from the list above)
Signature: ___________ Date: ___________
Supervisory Special Investigator: Recommendation: ______ (A or C from the list above)
Signature: ___________ Date: ___________
District Manager: Action Decision: ______ (A or C from the list above)
Signature: ___________ Date: ___________

ADDITIONAL COMMENTS OR REMARKS:

CASE ASSIGNMENT INFORMATION:
Investigation Case No. ___________ Date Assigned ___________
Investigator Assigned ___________ ID No. ___________

MSHA Form 7000-20, June 97 (revised) WHITE: SPECIAL INVESTIGATOR
Section 110 (F)

Whoever knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to this Act shall, upon conviction, be punished by a fine of not more than $250,000 or by imprisonment for not more than five years, or both.
What’s New

- 30 CFR Part 75
- RIN 1219-AB75
- Examinations of Work Areas in Underground Coal Mines for Violations of Mandatory Health or Safety Standards
- AGENCY: Mine Safety and Health Administration, Labor.
- ACTION: Final rule.
The Mine Safety and Health Administration (MSHA) is revising its requirements for preshift, supplemental, on-shift, and weekly examinations of underground coal mines to require operators to identify violations of health or safety standards related to ventilation, methane, roof control, combustible materials, rock dust, other safeguards, and guarding, as listed in the final rule. Violations of these standards create unsafe conditions for underground coal miners.
The final rule also requires that the mine operator record and correct violations of the nine safety and health standards found during these examinations. It also requires that the operator review with mine examiners on a quarterly basis all citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required. The final rule will increase the identification and correction of unsafe conditions in mines earlier, and improve protection for miners in underground coal mines.
Final Rule

DATES: Effective date: August 6, 2012.
Summary of Major Provisions

The final rule revises MSHA's requirements for pre shift, supplemental, on-shift, and weekly examinations of underground coal mines to require operators to identify and correct violations of nine health or safety standards related to ventilation, methane, roof control, combustible materials, rock dust, other safeguards, and guarding, in addition to hazardous conditions.
These nine standards are consistent with MSHA's "Rules to Live By” initiatives started in 2010 to prevent fatalities in mining. Violations of these nine standards represent the conditions or practices that, if uncorrected, present the greatest unsafe conditions and the most serious risks to miners. It is important to remind operators that if examiners observe other violations, they remain obligated, as they are under the existing standards, to address these violations. The final rule requires mine operators to record the actions taken to correct these violations.
Summary of Major Provisions

The final rule, like the proposal, adds a new provision that requires the operator to review with mine examiners, on a quarterly basis, all citations and orders issued in areas where pre shift, supplemental, on-shift, and weekly examinations are required. The questions and discussions that arise during the quarterly reviews will educate and enhance the skills and knowledge of the operators and the examiners to identify hazards and violations, resulting in continual improvement in the quality of mine examinations, the safety and health conditions in the mines, and protection for miners.
Summary of Major Provisions

Under the final rule, examiners must examine for hazardous conditions and violations of the following nine standards:

- §§ 75.202(a) and 75.220(a)(1) — roof support and the mine roof control plan;
- §§ 75.333(h) and 75.370(a)(1) — maintenance of ventilation controls and the mine ventilation plan;
- §§ 75.400 and 75.403 — accumulations of combustible materials and application of rock dust;
Summary of Major Provisions

§ 75.1403 — other safeguards, limited to maintenance of travelways along belt conveyors, off track haulage roadways, track haulage, track switches, and other components for haulage;

§ 75.1722(a) — guarding moving machine parts; and

§ 75.1731(a) — maintenance of belt conveyor components
These standards represent the conditions or practices that, if uncorrected, would present the greatest unsafe conditions and the most serious risks to miners in underground coal mines. In addition, based on MSHA data and experience, these also represent violations that are frequently found by MSHA inspectors year after year.