

2015 PENNSYLVANIA PRE-SHIFT

August 20, 2015

STAGING AREA

EXAMINER HAS 10 MINUTES TO ACCOMPLISH WHAT IS WRITTEN BELOW

- **Receives blank map**
- **Receives written statement**
- **Receives mine plans**
- **Receives ventilation map**
- **Number index cards during this 10 minute period**
- **Detectors will be left on during examination**
- **If a placard is not present where a gas test is required, the reading shall be 0.0% CH₄ 20.9% O₂**
- **Instruct from the mine plan page the importance of simulating and verbally announcing movement through ventilation structures such as stoppings, overcasts, line curtains, check curtains, airlocks, etc.**

Note: Once four minutes have expired give examiner a copy of the fax and the revised map for him to examine.

Hello _____ it's John Mason. This is the first time for me as the acting shift foreman. With the abundance of rain fall in the last 24 hours area roads are flooded out. We are limited to the number of miners as well as pre-shift examiners reporting for work this shift.

You will be conducting a pre-shift examination of the new East Mains Right and Left sections. All the areas you will be examining are unfamiliar to you and are newly developed in only the past 3 months.

#1 entry East Mains Right – intake

#1 entry East Mains Left – return

#2 entry East Mains Right – intake

#2 entry East Mains Left – intake

#3 entry East Mains Right – return

#3 entry East Mains Left – intake

The two entries that adjoin the sections up to the stopping line on the return side lead to the old shop and will be pre-shifted by another examiner. You will however, need to pre-shift the belt entry. All the ventilation has been changed due to a new dual shaft put on line three days ago. The new section machinery has been brought in before the ventilation changes 5 days ago in East Mains Right section.

The one message for you of utmost importance that you are required to take a velocity reading inby the feeder location in the East Mains Left section and a L.O.C. air reading in both sections.

You have a good bit to pre-shifting to do but I chose you because I knew you could do a thorough examination quickly.

The judges will let you know when you have one minute left. See you at quitting time. Good Luck! Thanks.

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I just received a fax from upstairs that we received from the other portal in regards to your pre-shift examination.

FIRST

The mine foreman called from home to remind us that the mine received a temporary approval to allow us to ventilate the East Mains section belt with intake air.

SECOND

We were able to get another mine examiner who just came in 10 minutes ago to help you with some of your pre-shift examination. He will be examining the slope from outside down to and including the East Main's belt, some of the old track entries and around the old shop and finishing his exam in your section.

We added a map in this fax for your convenience to illustrate the areas in your section that he will be helping you pre-shift.

PENNSYLVANIA STATE PRE-SHIFT CONTEST
August 20, 2015

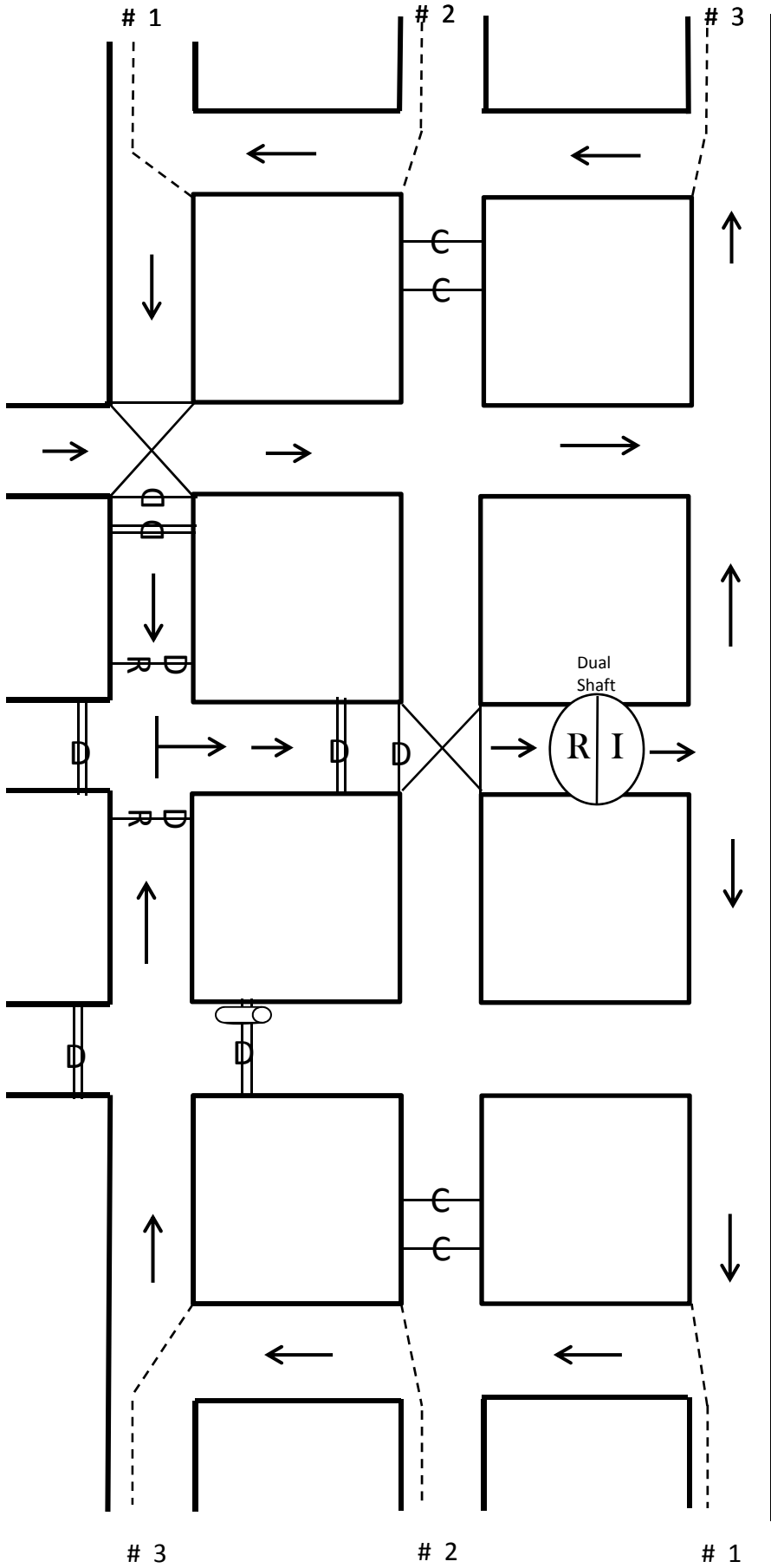
ROOF CONTROL PLAN

- Minimum roof support length 96 inches
- 16 foot cable bolts shall be installed in all intersections on 4 foot centers
- Roof bolt installation 4 feet by 4 feet
- Maximum entry width 18 feet
- 67 feet diagonal intersection measurement
- Maximum cut depth 20 feet
- All cuts must be bolted entirely within 8 hours after extraction
- Danger signs and/or physical barriers shall be placed to prevent entry into unsafe or unsupported areas
- Pillar size: 50 feet by 50 feet
- Mining height averages 8 feet
- All roof and rib areas must be protected only by approved mesh material that is specified in the Roof Control Plan
- 48 inch minimum rib bolt length

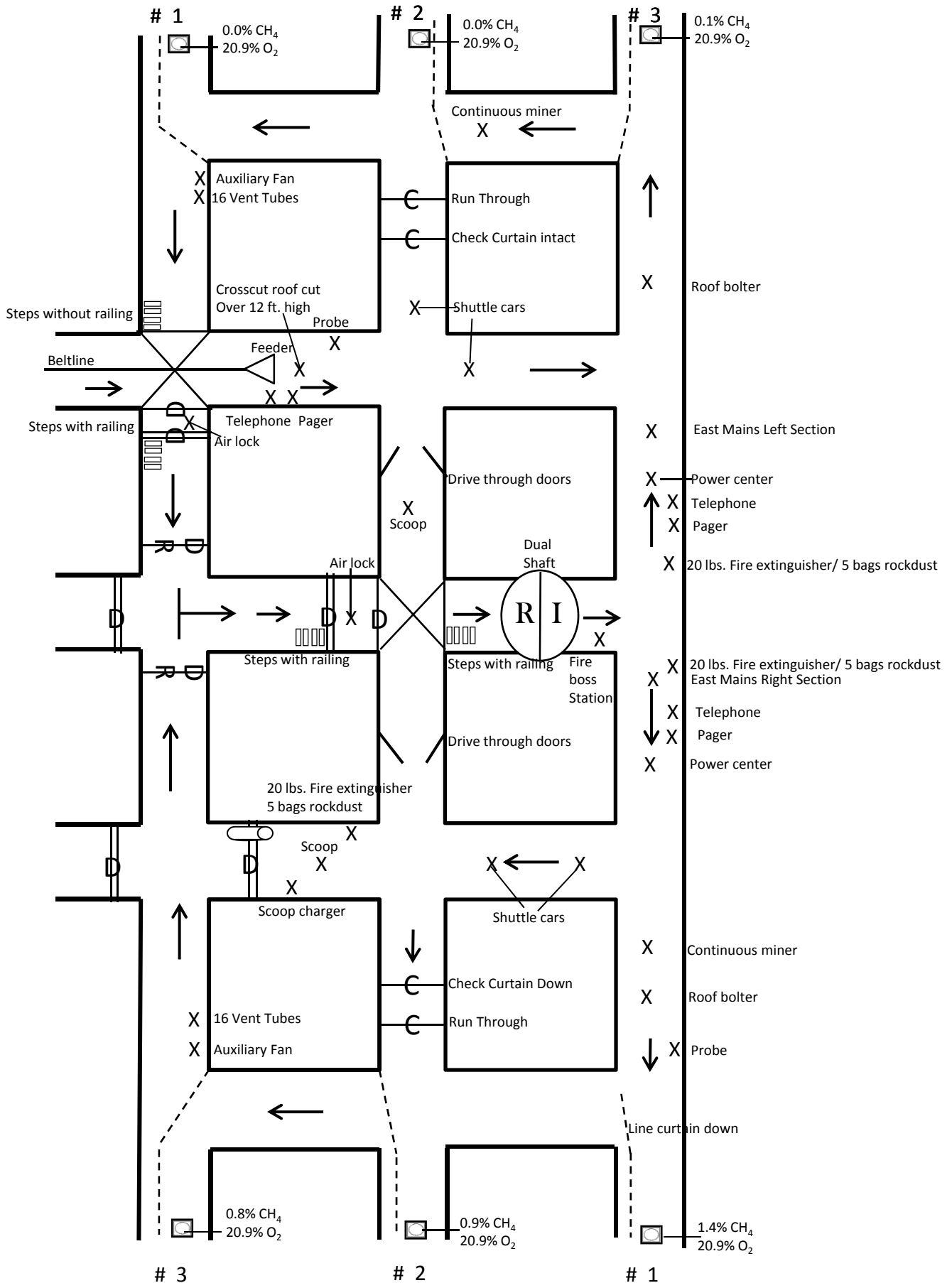
VENTILATION PLAN

- Exhaust ventilation
- Belt air is intake air ventilated into mine from the Mine's Slope Opening
- Permanent stoppings shall be maintained up to and including the third connecting crosscut
- Face line curtains must be properly installed to dilute and render harmless any gas accumulation which may occur. They must be adequately hung tight to rib & roof and within 5 feet of the face or unsupported area
- A total of 24 SCSR's must be present in the section cache
- CO sensors must be within 100 feet down wind of electrical installations
- Simulate and verbally announce your actions when passing through any type of ventilation control (stoppings, regulators, line curtains, check curtains, etc.)
- Violations , dangerous conditions or ventilation changes can be corrected when needed

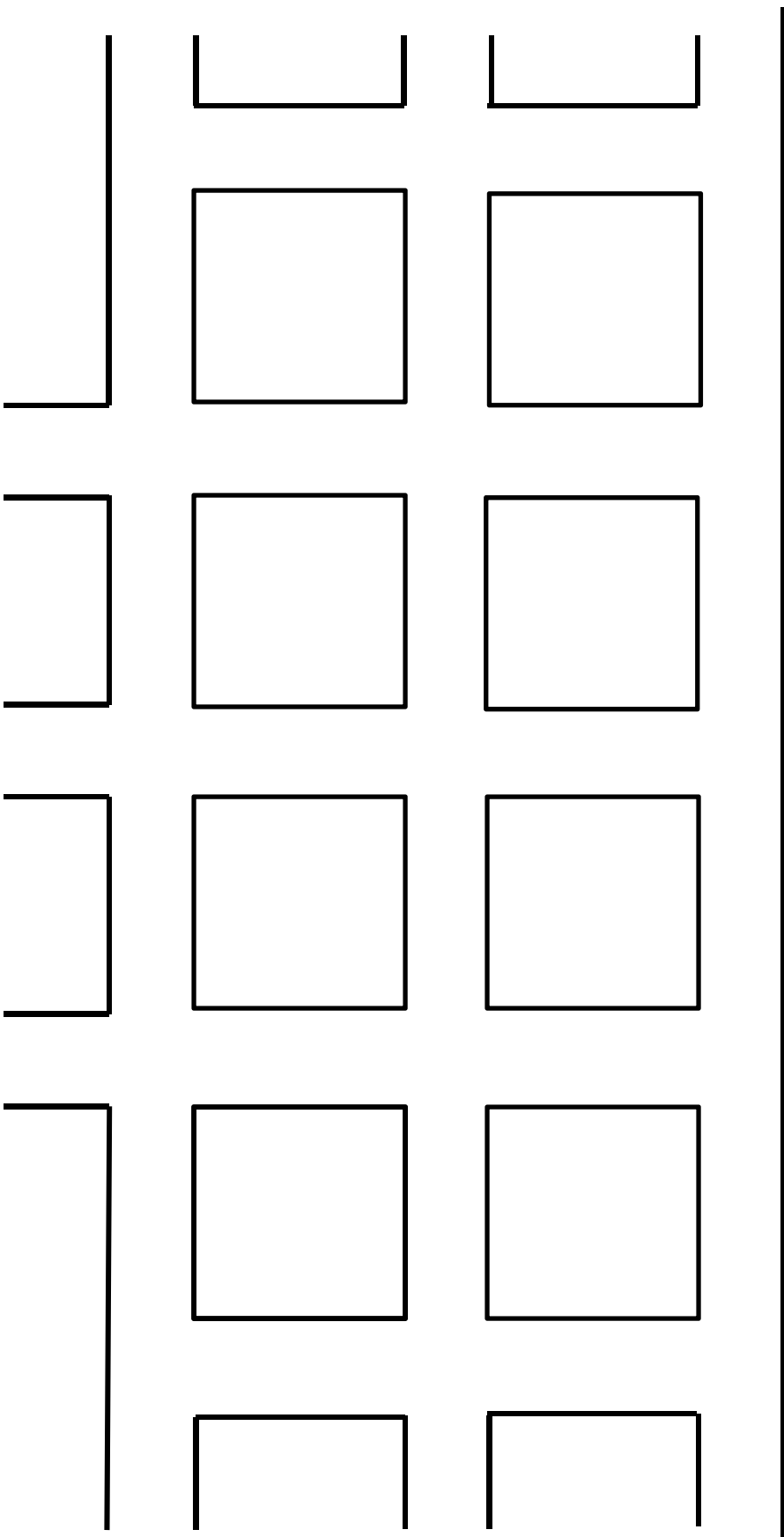
- 3 air readings are required
 1. Velocity of airflow inby feeder in east mains left section (minimum 70 velocity)
 2. Last open crosscut East Mains Left section (minimum 60,000 cfm)
 3. Last open crosscut East Mains Right section (minimum 50,000 cfm)



Ventilation Map



Problem



Blank Map

**Pennsylvania State Pre-shift Contest
August 20, 2105
Judges Discount Sheet**

EAST MAINS LEFT SECTION

	Yes	No
<u>Fire Boss Station</u>		
• Start clock (rule 1)	_____	_____
• Check in (rule 1)	_____	_____
• SCSR check (rule 3)	_____	_____
• Gas detector (s) (rule 19)	_____	_____
• Required equipment (rule 2)	_____	_____
• Required equipment maintained operable (rule 14)	_____	_____
<u>#3 Entry</u>		
• 20# fire extinguisher/5 bags rock dust is suitable (rule 11)	_____	_____
• Gas test/DTI Power Center #3 entry 0.0% CH4 20.9% O2 (rule 4 & 5)	_____	_____
• Verbally state visual examination roof and rib #3 entry (rule 10)	_____	_____
• Check pager and telephone (rule 19)	_____	_____
• #3 entry up to #3 Face no conditions found	_____	_____
• Gas test/DTI #3 face 0.0% CH4 20.9% O2 (rule 5)	_____	_____

#2 Entry

- Gas test/DTI #2 entry 0.0% CH4 20.9% O2 (rule 5) _____
- Verbally state visual examination roof & rib #2 entry (rule10) _____
- Line curtain in #2 Face is installed on wrong side of entry. Line curtain needs to be properly installed to correct violation (rule 10) _____
- Gas test/DTI #2 Face 0.0% CH4 20.9% O2 (rule 5) _____
- #2 Entry outby from run through curtain to overcast behind shaft no conditions found _____
- Gas test/DTI A crosscut 2 to 1 feeder location 0.0% CH4 20.9% O2 (rule 5) _____
- Velocity reading in belt entry #2 to 1A crosscut inby feeder minimum velocity is 70 - velocity found 79 (rule 8) _____
- B crosscut L.O.C. air reading minimum 60,000 cfm. Use of proper air reading procedures _____

#1 Entry

- Gas test/DTI #1 entry 0.0% CH4 20.9% O2 (rule 5) _____
- Verbally state visual examination roof & rib #1 entry (rule 10) _____
- Gas test/DTI #1 face 0.0% CH4 20.9% O2 (rule 5) _____

- **Outby #1 entry B to A crosscut steps on approach to top of over cast – no railing. Examiner needs to place danger tags/DTI on approaches to these steps to avoid an accident before railing is installed (rule 11)**

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Air Reading in L.O.C.

#2 to #1 B crosscut East Mains Left section

8.75' height x 16' width = 140 area

Velocity = 487

CFM = 68,180

Examiners must examine all faces, entries and crosscut locations throughout entire sections.

All machinery is in good to newer condition.

**Pennsylvania State Pre-shift Contest
August 20, 2015
Judges Discount Sheet**

EAST MAINS RIGHT SECTION

	Yes	No
<u># 1 Entry</u>		
• 20# fire extinguisher and 5 bags of rock dust is suitable (rule 11)	_____	_____
• Gas test/DTI #1 entry and power center 0.0% CH4 20.9% O2 (rule 4 & 5)	_____	_____
• Verbally state visual examination roof and rib #1 entry (rule 10)	_____	_____
• Check pager phone and telephone (rule 19)	_____	_____
• Line curtain in #1 Face is down and not adequately ventilating gases out of #1 Face. Can be corrected after section is properly ventilated and this line curtain properly installed (rule 7)	_____	_____
• Gas test/DTI #1 face found above 1.0% CH4, 1.4% CH4 20.9% O2 – can be corrected after section is properly ventilated (rule 12) New gas test 0.2% CH4 20.9% O2	_____	_____
<u>#2 Entry</u>		
• Gas test/DTI #2 entry 0.0% CH4 20.9% O2 (rule 5)	_____	_____

- **Verbally state visual examination roof and rib #2 entry (rule 10)** _____
- **#2 entry – check curtain down - short circuiting section air flow. Check curtain needs to be properly installed to correct violation (rule 12)** _____
- **Gas test/DTI #2 face 0.9% CH4 20.9% O2 After ventilation is corrected new gas test 0.1% CH4 20.9% O2 (rule 5)** _____
- **Gas test/DTI scoop charger 0.0% CH4 20.9% O2 (rule 5)** _____
- **#2 entry outby scoop charging station to overcast behind shaft no conditions** _____

Air reading in L.O.C.

#2 to #3 B crosscut East Mains Right section

Minimum 50,000 CFM

Use of proper air reading procedures

#3 Entry

- **Gas test/DTI #3 entry 0.0% CH4 20.9% O2 (rule 5)** _____
- **Verbally state visual examination roof and rib #3 entry (rule 10)** _____
- **Gas test/DTI #3 face 0.8% CH4 20.9% O2 After ventilation is corrected new gas test 0.1% CH4 20.9% O2** _____

Air reading in L.O.C.

#2 to #3 B crosscut East Mains Right section

8' height x 16' width = 128 area

Velocity = 402

CFM = 51.456

2015 Written Examination

1. When an auxiliary fan is stopped, line brattice or ____ face ventilation control devices shall be used to maintain ventilation to the working places.
 - a. Tubular
 - b. Other
 - c. Section

2. ____ track haulage roadways should be maintained as free as practicable from bottom irregularities, debris, and wet or muddy conditions.
 - a. Main
 - b. Secondary
 - c. Off

3. The operator ____ maintain a 300 foot diameter barrier around oil and gas wells, unless a lesser barrier consistent with state laws and regulations is approved.
 - a. Can
 - b. Must
 - c. Will

4. The map required by ____ shall be kept up to date by temporary notations.
 - a. 75.0120
 - b. 75.1200
 - c. 75.1020

5. Telephones or equivalent two way communication facilities shall be located not more than ____ feet outby the last open crosscut and not more than ____ feet from the farthest point of penetration of the working places on a working section.
 - a. 500, 800
 - b. 400, 700
 - c. 700, 400

6. Permissible flame safety lamps may ____ be used as a supplementary testing device.
 - a. Never
 - b. Often
 - c. Only

7. Temporary notations shall include permanent ventilation controls constructed or removed, such as seals, overcasts, undercasts, regulators, and permanent stoppings, and the direction of ____.
 - a. Air flow
 - b. Air currents
 - c. Mean air velocities

8. The mine ventilation plan shall show the location where the air quantity ventilating the working place must be greater than ____ cubic feet per minute when coal is being cut, mined, drilled for blasting or loaded.
 - a. 3,000
 - b. 7,000
 - c. 9,000

9. Ventilation controls are used underground to properly ____ air to all sections of the mine.
- a. Disperse
 - b. Divide
 - c. Distribute
10. At all times, the site and area around the refuge alternative shall be kept clear of ____, materials and obstructions.
- a. Machinery
 - b. Loose rock
 - c. Tools

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