

2016



PRESHIFT  
CONTEST



JULY 12, 2016  
PIKEVILLE, KY



HATFIELD AND McCOY MINE SAFETY COMPETITION  
PRESHIFT EXAMINER'S CONTEST  
JULY 12, 2016

CONTESTANT STATEMENT

The Hatfield and McCoy Coal Company, Pikeville No. 1 Mine, mines coal with a continuous miner, shuttle cars, roof bolting machine and battery powered scoops. The mine operates two shifts per day, five days per week on MMU 001-0. This mine has a history of poor roof/rib conditions and multiple citations issued for low belt air velocities.

You are to conduct a preshift examination of the MMU 001-0, including the crosscut containing Survey Station 101, for the upcoming shift. This section was idle the previous 8 hour shift.

The MMU 001-0 section consists of three entries.

No. 1 entry is the intake

No. 2 entry is the belt

No. 3 entry is the return

The mining height averages 6 feet. The main fan is blowing and operational. Underground power is energized.

A copy of the approved roof control plan, the approved ventilation plan and a blank map are all attached to this statement. If means are available the section is to be left in compliance with the approved plans and all hazardous conditions corrected.

Note: No roof support is required to be installed by the examiner  
Examiner shall comply with the approved plans

For the contest purposes all violations of the Title 30 CFR will be considered hazards.

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## Roof Control Plan

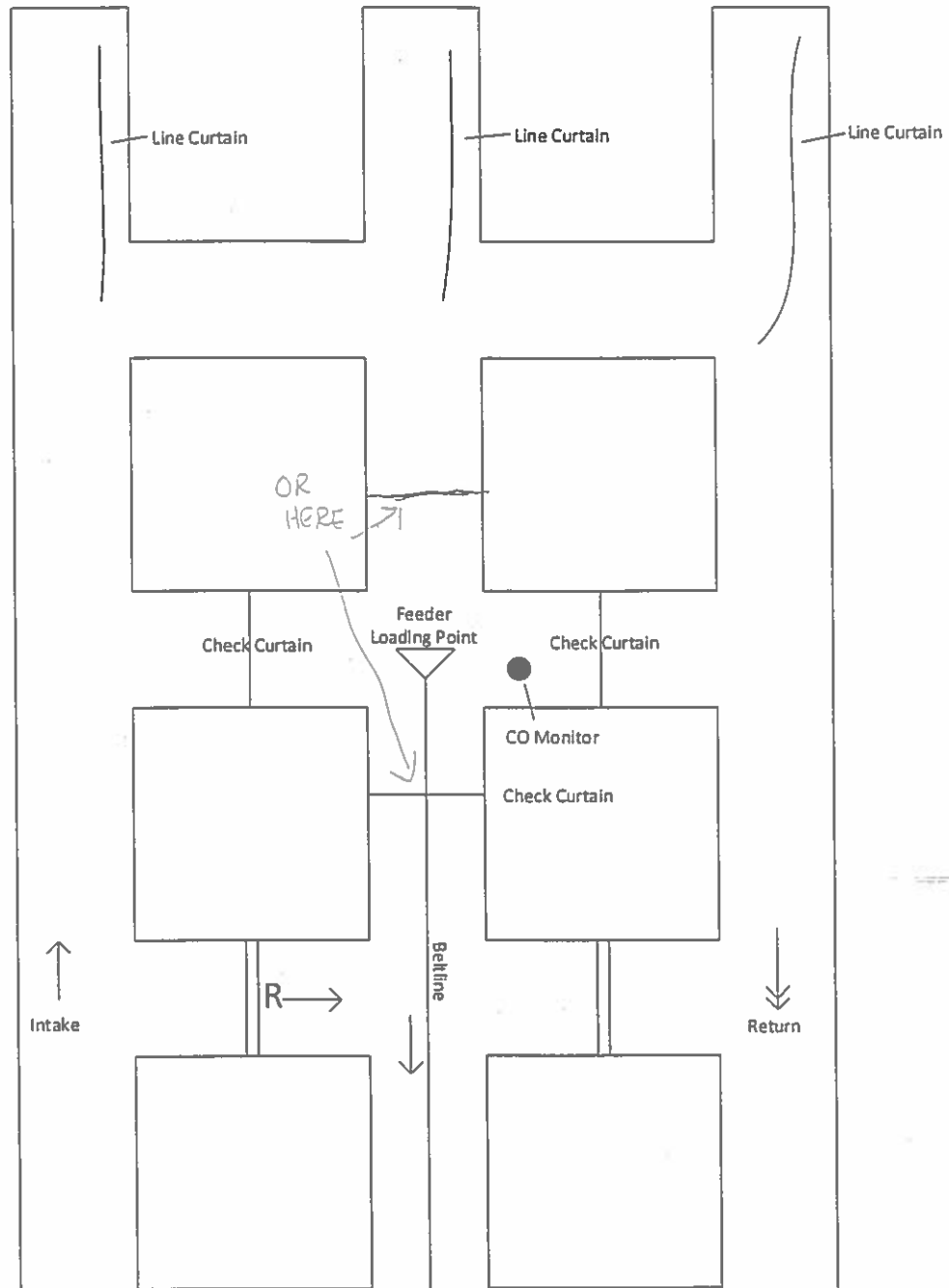
- Minimum bolt length - 60" resin grouted rebar bolt.
- The roof bolt installation pattern is 4 feet by 4 feet.
- The maximum entry and crosscut widths are 20 feet.
- When an unbolted crosscut is present, the preshift examiner may precede in by the crosscut to examine the working places.
- The maximum cut depth is 30 feet.
- Extended Cuts shall not be left unsupported over a 24 hour period.
- When subnormal or adverse roof conditions are encountered, the depth of the cut shall be limited to 20' or less until roof conditions have improved to a point where extended cuts may be resumed. At least 60', or two deep cut lengths, whichever is more, shall be advanced in good (normal) roof and the roof evaluated by the mine foreman or section foreman, roof-bolt operator and the miner operator before extended cuts are resumed.

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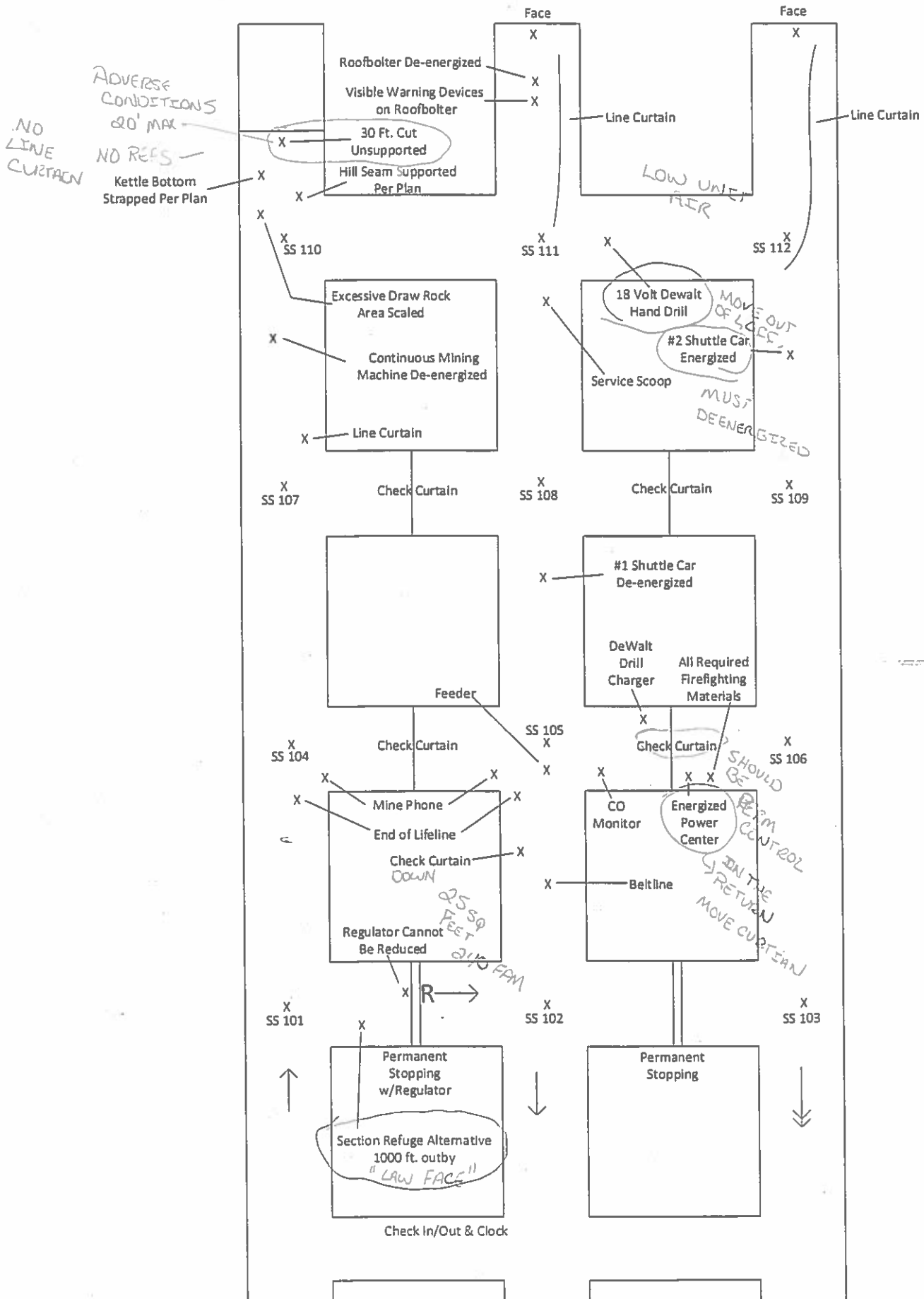
MMU 001-0 Ventilation Plan

- 18,000 MIN IN PROBLEM*
- 20,000 CFM will be provided in the last open crosscut and permanent ventilation controls maintained up to and including third open crosscut on return side
  - 7,500 CFM or 75 FPM mean air velocity (whichever is greater) will be provided in all working faces where coal is cut, mined, loaded or drilled for blasting. (Exhausting face ventilation only)
  - A perceptible movement of air is required in all idle working places. Line curtain installed within 10 ft. of face for bolted places and next to the last row of permanent roof support for unbolted places.
  - 6,000 CFM will be provided at belt air regulator outby the section loading point. Quantity to be checked and recorded in Preshift Record
  - Section Loading point CO Monitor location shown on Ventilation Plan Typical Face Sketch

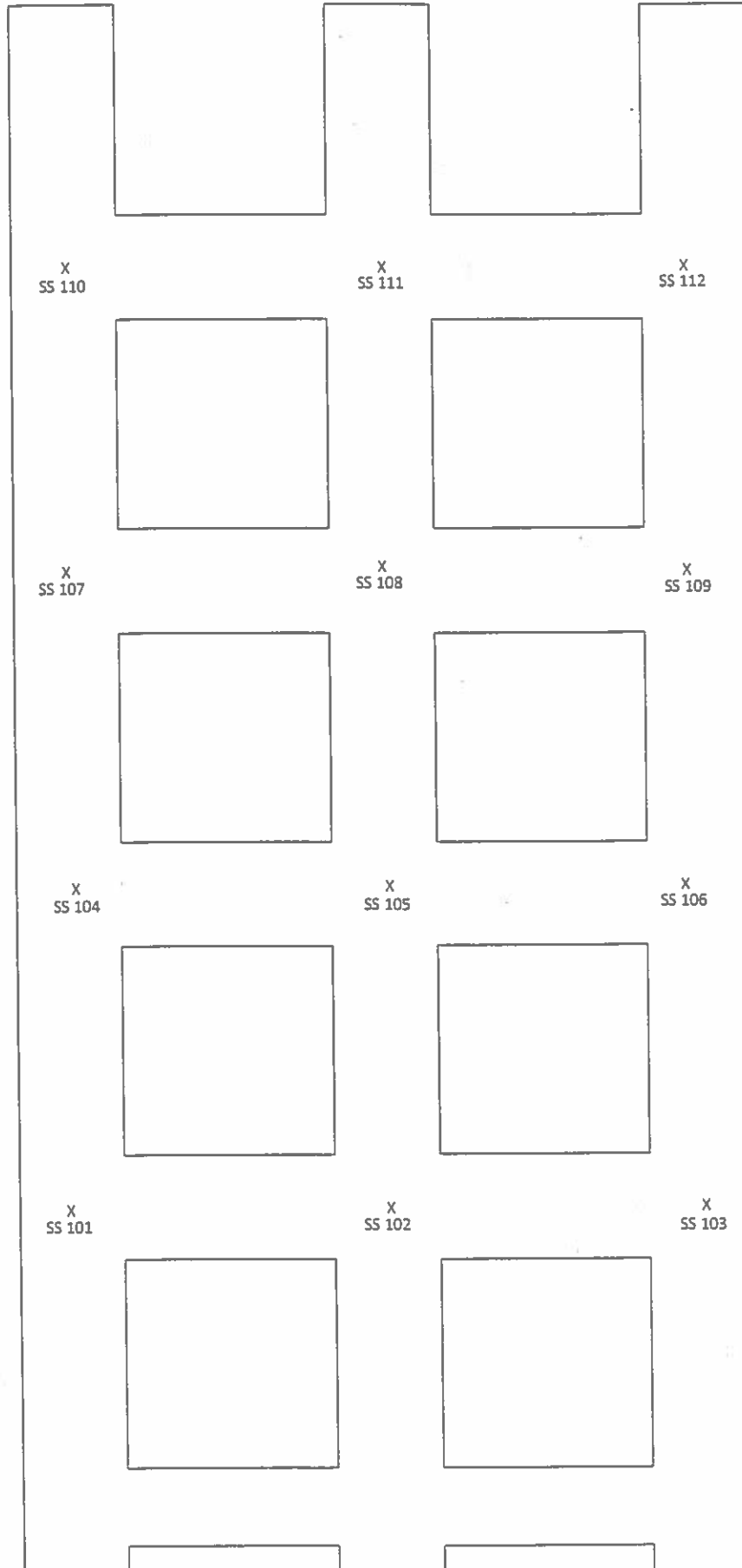
# Ventilation Plan Typical Face Sketch MMU 001-0



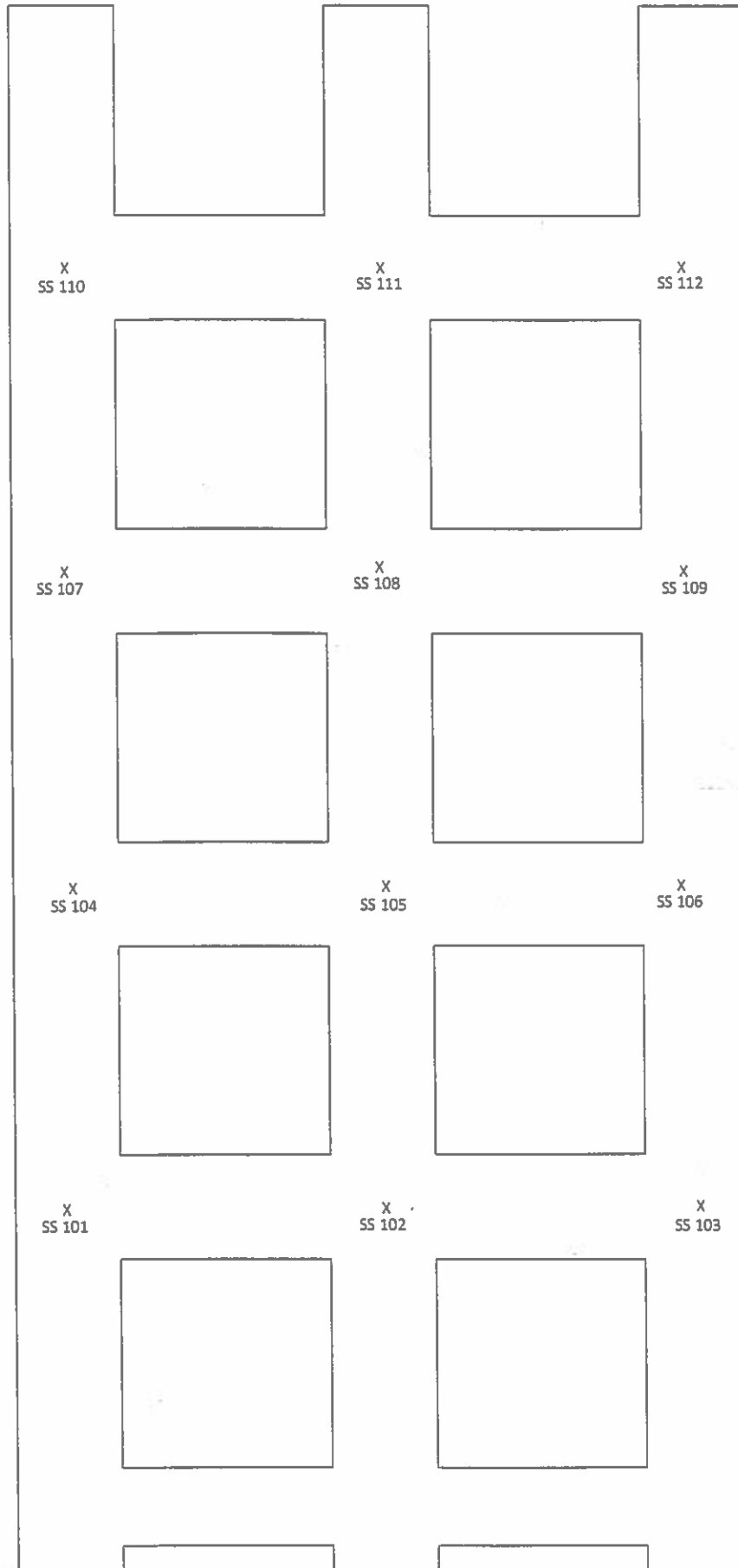
# 2016 Hatfield & McCoy Mine Safety Competition Preshift



2016 Hatfield & McCoy Mine Safety Competition  
Preshift -- CONTESTANT MAP



2016 Hatfield & McCoy Mine Safety Competition  
Preshift – JUDGES BLANK MAP





LAST OPEN CROSSCUT AIR READINGS

**ENTRY WIDTH → 20 FEET**

**ENTRY HEIGHT → 6 FEET**

VENTILATION CONTROLS IN-PLACE

**Velocity - 150 fpm**

$$20 \times 6 \times 150 = 18,000 \text{ cfm}$$

WITHOUT VENT. CONTROLS IN-PLACE

**Velocity - 60 fpm**

$$20 \times 6 \times 60 = 7,200 \text{ cfm}$$

ANEMOMETER TURNED BACKWARDS

**Velocity - 850 fpm**

$$20 \times 6 \times 850 = 102,000 \text{ cfm}$$

## **BELT REGULATOR AIR READINGS**

Area - 25 square feet

Velocity - 240 fpm

$25 \times 240 = 6,000$  cfm

## **ANEMOMETER TURNED BACKWARDS**

Velocity - 760 fpm

$25 \times 760 = 19,000$  cfm

**PRE-SHIFT EXAMINATION CONTEST  
JUDGES DISCOUNT SHEET**

CONTESTANT \_\_\_\_\_ NO. \_\_\_\_\_ \*DENOTES DISCOUNT

**OUTSIDE**

|   | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|---|------------|-----------|-------------|
| (1) DID CONTESTANT CHECK IN                                   | ___        | ___*      | 1           |
| (2) DID CONTESTANT CHECK SCSR                                 | ___        | ___*      | 3           |
| (3) DID CONTESTANT CHECK METHANE/OXYGEN DETECTOR              | ___        | ___*      | 19          |
| (4) DID CONTESTANT HAVE ALL REQUIRED EQUIPMENT                | ___        | ___*      | 2           |
| (5) WAS CONTESTANT EQUIPMENT MAINTAINED IN OPERABLE CONDITION | ___        | ___*      | 14          |
| (6) DID CONTESTANT CHECK OUT                                  | ___        | ___*      | 1           |

**NO. 1 ENTRY**

|   | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|---|------------|-----------|-------------|
| (1) DID CONTESTANT TAKE GAS TEST IN ENTRY   | ___        | ___*      | 5           |
| (2) DID CONTESTANT TAKE A PROPER GAS TEST   | ___        | ___*      | 6           |
| (3) DID CONTESTANT DTI ENTRY WHERE GAS TEST WAS MADE  | ___        | ___*      | 4           |
| (4) DID CONTESTANT IDENTIFY ROOF & RIB TEST IN ENTRY  | ___        | ___*      | 10          |
| (5) DID CONTESTANT TAKE GAS TEST IN THE FACE AREA #1 ENTRY NEAR LAST PERMANENT ROOF SUPPORT (FACE NOT BOLTED) | ___        | ___*      | 5           |
| (6) DID CONTESTANT TAKE A PROPER GAS TEST   | ___        | ___*      | 6           |
| (7) DID CONTESTANT DTI THE FACE AREA #1 ENTRY (NOT BOLTED)  | ___        | ___*      | 4           |
| (8) DID CONTESTANT ENTER UNSUPPORTED AREA OF #1 FACE  | ___*       | ___       | 16          |
| (9) DID CONTESTANT IDENTIFY MISSING LINE CURTAIN  | ___        | ___*      | 11          |
| (10) DID CONTESTANT INSTALL LINE CURTAIN  | ___        | ___*      | 12          |
| (11) DID CONTESTANT IDENTIFY 30 FT CUT IN ADVERSE ROOF  | ___        | ___*      | 11          |
| (12) DID CONTESTANT DANGER 30 FT CUT IN ADVERSE ROOF  | ___        | ___*      | 12          |
| (13) DID CONTESTANT IDENTIFY NO VISIBLE WARNING DEVICE  | ___        | ___*      | 11          |
| (14) DID CONTESTANT INSTALL VISIBLE WARNING DEVICE  | ___        | ___*      | 12          |

**NO. 2 ENTRY**

|  | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|--|------------|-----------|-------------|
| (1) DID CONTESTANT TAKE GAS TEST IN ENTRY            | ___        | ___*      | 5           |
| (2) DID CONTESTANT TAKE A PROPER GAS TEST            | ___        | ___*      | 6           |
| (3) DID CONTESTANT DTI ENTRY WHERE GAS TEST WAS MADE | ___        | ___*      | 4           |
| (4) DID CONTESTANT IDENTIFY ROOF & RIB TEST IN ENTRY | ___        | ___*      | 10          |
| (5) DID CONTESTANT IDENTIFY MISSING CHECK CURTAIN    | ___        | ___*      | 11          |
| (6) DID CONTESTANT INSTALL CHECK CURTAIN             | ___        | ___*      | 12          |
| (7) DID CONTESTANT TAKE GAS TEST IN FACE AREA        | ___        | ___*      | 5           |
| (8) DID CONTESTANT TAKE A PROPER GAS TEST            | ___        | ___*      | 6           |
| (9) DID CONTESTANT DTI THE FACE AREA #2 ENTRY        | ___        | ___*      | 4           |

**PRE-SHIFT EXAMINATION CONTEST  
JUDGES DISCOUNT SHEET**

CONTESTANT \_\_\_\_\_ NO. \_\_\_\_\_ \*DENOTES DISCOUNT

**NO. 3 ENTRY**

|  | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|--|------------|-----------|-------------|
| (1) DID CONTESTANT TAKE GAS TEST IN ENTRY                  | ___        | ___*      | 5           |
| (2) DID CONTESTANT DTI ENTRY WHERE GAS TEST WAS MADE       | ___        | ___*      | 4           |
| (3) DID CONTESTANT TAKE A PROPER GAS TEST                  | ___        | ___*      | 6           |
| (4) DID CONTESTANT IDENTIFY ROOF & RIB TEST                | ___        | ___*      | 10          |
| (5) DID CONTESTANT IDENTIFY ENERGIZED #2 SHUTTLE CAR       | ___        | ___*      | 11          |
| (6) DID CONTESTANT DE-ENERGIZE #2 SHUTTLE CAR              | ___        | ___*      | 12          |
| (7) DID CONTESTANT TAKE GAS TEST IN THE FACE AREA #3 ENTRY | ___        | ___*      | 5           |
| (8) DID CONTESTANT TAKE A PROPER GAS TEST                  | ___        | ___*      | 6           |
| (9) DID CONTESTANT DTI THE FACE AREA #3 ENTRY              | ___        | ___*      | 4           |

**CROSS CUT BETWEEN SS 101 &102**

|  | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|--|------------|-----------|-------------|
| (1) DID CONTESTANT CHECK QUANTITY AT BELT REGULATOR  | ___        | ___*      | 7           |
| (2) DID CONTESTANT IDENTIFY SECTION RA TOO FAR OUTBY | ___        | ___*      | 11          |
| (3) DID CONTESTANT DANGER RA LOCATION                | ___        | ___*      | 12          |

**CROSS CUT BETWEEN SS 105 &106**

|   | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|---|------------|-----------|-------------|
| (1) DID CONTESTANT IDENTIFY PERMANENT CONTROL NOT INSTALLED | ___        | ___*      | 11          |
| (2) DID CONTESTANT DANGER MISSING PERMANENT CONTROL         | ___        | ___*      | 12          |
| (3) DID CONTESTANT IDENTIFY POWER CENTER IN RETURN          | ___        | ___*      | 11          |
| (4) DID CONTESTANT DANGER PC OR MOVE CHECK CURTAIN          | ___        | ___*      | 12          |
| (5) DID CONTESTANT GAS TEST AT POWER CENTER                 | ___        | ___*      | 5           |
| (6) DID CONTESTANT TAKE PROPER GAS TEST                     | ___        | ___*      | 6           |
| (7) DID CONTESTANT DTI AT POWER CENTER                      | ___        | ___*      | 4           |

**LOCC**

**CROSS CUT BETWEEN SS 111 &112**

|  | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|--|------------|-----------|-------------|
| (1) DID CONTESTANT DETERMINE CORRECT SECTION VENTILATION     | ___        | ___*      | 7           |
| (2) DID CONTESTANT USE PROPER PROCEDURE FOR LOCC AIR READING | ___        | ___*      | 8           |
| (3) DID CONTESTANT TAKE LOCC AIR READING IN CORRECT LOCATION | ___        | ___*      | 9           |
| (4) DID CONTESTANT IDENTIFY LOW AIR IN LOCC                  | ___        | ___*      | 11          |
| (5) DID CONTESTANT DANGER LOW AIR IN LOCC                    | ___        | ___*      | 12          |
| (6) DID CONTESTANT IDENTIFY 18V DRILL IN LOCC                | ___        | ___*      | 11          |
| (7) DID CONTESTANT REMOVE 18V DRILL FROM LOCC                | ___        | ___*      | 12          |

**GENERAL RULES**

|   | <u>YES</u> | <u>NO</u> | <u>RULE</u> |
|---|------------|-----------|-------------|
| (1) DID CONTESTANT RUN  | ___*       | ___       | 13          |
| (2) DID CONTESTANT EXAM ALL ACCESSIBLE AREAS                                      | ___        | ___*      | 18          |
| (3) DID CONTESTANT COMPLY WITH GENERAL RULES NOT COVERED<br>IN THE DISCOUNT SHEET | ___        | ___*      | 19          |

**PRE-SHIFT - CERTIFIED EXAMINER'S REPORT**

CONTESTANT NUMBER \_\_\_\_\_ CONTESTANT NAME \_\_\_\_\_  
 Date of Examination: \_\_\_\_\_ Time From: \_\_\_\_\_ AM/PM To: \_\_\_\_\_ AM/PM  
 Section/ Area: \_\_\_\_\_ Reported Outside? Yes \_\_\_ No \_\_\_ Time: \_\_\_\_\_ AM/PM  
 Reported By: \_\_\_\_\_ Received By: \_\_\_\_\_ (INITIAL)  
 (AUTHORIZED PERSON)

**Pre-shift required within 3 hours prior to any 8 hour interval.**

| Location        | Hazardous Condition                 | Action Taken                     | CH4  |
|-----------------|-------------------------------------|----------------------------------|------|
| No. 1 Entry     |                                     |                                  | 0.0% |
| No. 1 Face Area |                                     |                                  | 0.0% |
| No. 1 Face Area | Missing Line Curtain                | Installed Line Curtain           |      |
| No. 1 Face Area | Missing visible warning device      | Installed visible warning device |      |
| No. 1 Face Area | 30 ft. extended cut in adverse roof | Danger Off                       |      |
| No. 2 Entry     |                                     |                                  | 0.0% |
| No. 2 Entry     | Missing Check Curtain               | Installed Check Curtain          |      |
| No. 2 Face      |                                     |                                  | 0.0% |
| No. 3 Entry     |                                     |                                  | 0.0% |
| No. 3 Entry     | Energized #2 Shuttle Car            | De-energize #2 Shuttle Car       |      |
| No. 3 Face      |                                     |                                  | 0.0% |
|                 |                                     |                                  |      |

**Air Measurements**

| Location | CFM    | Location       | CFM   |
|----------|--------|----------------|-------|
| LOCC     | 18,000 | Belt Regulator | 6,000 |
|          |        |                |       |

Remarks:

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Signed by Pre-shift Certified Examiner

Date

Certification Number

**PRE-SHIFT - CERTIFIED EXAMINER'S REPORT**

CONTESTANT NUMBER \_\_\_\_\_ CONTESTANT NAME \_\_\_\_\_

Date of Examination: \_\_\_\_\_ Time From: \_\_\_\_\_ AM/PM To: \_\_\_\_\_ AM/PM

Section/Area: \_\_\_\_\_ Reported Outside? Yes \_\_\_ No \_\_\_ Time: \_\_\_\_\_ AM/PM

Reported By: \_\_\_\_\_ Received By: \_\_\_\_\_ (INITIAL)  
(AUTHORIZED PERSON)

**Pre-shift required within 3 hours prior to any 8 hour interval.**

| Location                                   | Hazardous Condition  | Action Taken                      | CH4 |
|--|--|-----------------------------------|-----|
| Crosscut between SS 101 and SS 102         | Section Refuge Alternative too far outby (over 1000 ft. from nearest face) | Danger off                        |     |
| Crosscut between SS 105 and SS 106         | Power Center in Return   | Danger Off OR moved check curtain |     |
| Crosscut between SS 105 and SS 106         | Permanent Control Required   | Danger Off                        |     |
| Crosscut between SS 111 and SS 112 Or LOCC | 18V Drill in LOCC  | Removed                           |     |
| Crosscut between SS 111 and SS 112 Or LOCC | Low Air Volume   | Danger Off                        |     |
|  |  |                                   |     |
|  |  |                                   |     |
|  |  |                                   |     |
|  |  |                                   |     |
|  |  |                                   |     |
|  |  |                                   |     |
|  |  |                                   |     |

**Air Measurements**

| Location | CFM | Location | CFM |
|----------|-----|----------|-----|
|          |     |          |     |
|          |     |          |     |

Remarks:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signed by Pre-shift Certified Examiner

Date

Certification Number