

**Underground**

**Mine**

**Foreman**

**Training**

**Program**

**Program developed by  
Office of Mine  
Safety & Licensing's  
Wayne Collett  
Harlan Office 2006**



# **Mine Foreman Training**

## **Pre-Shift and Substance**

### **Abuse – Unit 1**

**Power Point Program and Training**  
**Developed by Wayne Collett**  
**Harlan Office**  
**Office of Mine Safety & Licensing**  
**2006**



**The purpose of this training is to teach participants how to successfully administer the duties of a mine foreman and to comply with state and federal regulations.**



# **The training will include but not limited to the following subjects:**

- **Unit 1 - Orientation / Pre-Shift Inspections; Substance Abuse**
- **Unit 2 - Mining Law**
- **Unit 3 - Gases; Detection and Devices**
- **Unit 4 - Proper Use and Handling of Explosives**
- **Unit 5 - Mine Fires and Explosions**
- **Unit 6 - Electricity and Apparatus**
- **Unit 7 - Ventilation, Mapping and Use of Anemometer  
(Part 1 and Part 2)**
- **Unit 8 - First Aid and CPR (Part 1 and Part 2)**
- **Unit 9 - General Mining: Mining Plans (roof control, ventilation, fire fighting & evacuation, smoking article search) and Accident Reporting**



**Power Point Presentations have been developed for this training. The presentations will include applicable laws and visual aids.**

**Some areas of study will require “hands on” training such as: mapping, pre-shift examination, first aid and CPR, and use of instruments (gas detectors and anemometer).**

**Oral examinations are included after each unit of instruction.**



# Mine Foreman Orientation



# **As a mine foreman, your responsibilities will include but not limited to the following:**

- Directing your workforce in the areas of: safety and production**
- Complying with all mining plans**
- Complying with all state and federal regulations**
- Complying with your company's rules and regulations**



# KRS Chapter 351

## Definitions





**"Mine" means any open pit or any underground workings from which coal is produced for sale, exchange, or commercial use, and all shafts, slopes, drifts, or inclines leading thereto, and includes all buildings and equipment, above or below the surface of the ground, used in connection with the workings. Workings that are adjacent to each other and under the same management, but which are administered as distinct units, shall be considered a separate mine;**



**"Licensee" means any owner, operator, lessee, corporation, partnership, or other person who procures a license from the department to operate a coal mine;**



**"Operator" means the licensee, owner, lessee, or other person who operates or controls a coal mine;**



**"Mine foreman" means a certified person whom the licensee or superintendent places in charge of the workings of the mine and of the persons employed therein;**



**"Assistant mine foreman" means a certified person designated to assist the mine foreman in the supervision of a portion or the whole of a mine or of the persons employed therein;**



**"Fire boss" (often referred to as a pre-shift examiner) means a person certified as a mine foreman or assistant mine foreman who is designated by management to examine a mine or part of a mine for explosive gas or other dangers before a shift crew enters;**



**All coal miners in the state of Kentucky are required to be under the supervision of a certified mine foreman.**



**What are the requirements to become certified as a mine foreman in the state of Kentucky?**





## **KRS 351.120**

**You must have five (5) years' practical underground coal mining experience acquired after achieving the age of eighteen (18), with at least one (1) year of this experience acquired on an active working section of an underground mine. {KRS 351.120 (1) and (8)}**

**You must successfully complete an examination (with at least 80 percent efficiency) administered by the Commissioner.**



**Persons holding a four (4) year degree in mining engineering from a recognized institution shall be credited with the equivalent of two (2) years of practical experience in coal mines when applying for any mine foreman or assistant mine foreman certificate.**



**Persons holding an associate degree in mining from a recognized institution shall be credited with the equivalent of one (1) year experience when applying for a mine foreman certificate and one (1) year when applying for an assistant mine foreman certificate and shall file proof of having received their degree prior to the examination.**



# Pre-Shift Inspection



# Pre-Shift Inspection

**The purpose of the pre-shift inspection is to accurately assess the conditions of the mine and take the necessary action to correct any un-safe and hazardous conditions found. This will help to provide a safe working place for the workers and reduce the chance for accidents and injuries**



# **KRS 352.280 Fire boss duties**

**A certified foreman or fireboss is required to carefully examine the mine workings within three (3) hours before each shift enters the mine.**



# **The foreman or fireboss is required to examine the following:**

- **Every working place**
- **All places adjacent to live workings**
- **Every roadway where persons are required to work or travel**
- **All abandoned panels on the intake**



# **The foreman or fireboss is also required to examine:**

- **Every set of seals on the intake**
- **All roof falls near active workings on the intake and on the working sections**





**Before proceeding with the examination he shall see that the air current is traveling its proper course. In making the examination he shall use approved gas detection devices.**



**A properly certified person shall examine for all dangers in all portions of the mines under his charge, and after examination he shall leave at or as close as possible to the face of every place examined the date and time of the examination and his initials as evidence that he has performed his duty.**



# **The foreman or fireboss shall also examine:**

- **The entrances to all worked-out and abandoned portions adjacent to the roadways and working places under his charge where explosive gas is likely to accumulate, and he shall place a danger signal across the entrance to every place where explosive gas is discovered or where immediate danger is found to exist from any other cause. The signal shall be sufficient warning for persons not to enter.**



**The fire boss shall not allow any other person to enter or remain in any portion of the mine through which a dangerous accumulation of gas is being passed into the ventilating current from any portion of the mine.**



**When the mine is idle and workmen are required to go into the mine, the section, portion, or part of the mine entered must be inspected by a properly certified person within three (3) hours before the workmen enter.**



**Each week, a properly certified person designated by the mine foreman shall examine each set of seals on the return, all designated intake and return entries, and all escapeways.**



**The record shall show the time taken in making the examination, the nature and location of any danger discovered in the mine, and what has been done to correct the dangerous conditions.**



**If any dangerous or hazardous condition is discovered, the fire boss must take action immediately. If he can correct the condition, he must do so. If he is unable to correct the condition, he must barricade and danger off the area or the equipment, preventing persons from entering the dangerous area or operating the unsafe equipment.**





**No person shall pass or remove a danger signal or danger sign until the dangerous condition has been corrected, except the fire boss or the mine foreman and those under their direct supervision who will be correcting the dangerous condition.**



**The fire boss shall then report its location to the mine foreman, or in his absence to the assistant mine foreman in charge, who shall take immediate action to remove the danger.**



**The record books of the licensee shall at all times during working hours be accessible to the mine inspector and the miner or his representative.**



## **KRS 352.300 Fire boss stations / danger signals (signs or boards)**

**The mine foreman and the fire boss shall provide a permanent station with a proper danger signal, designated by suitable letters and colors, at or near the main entrance to the mine**



**If the working portions are one (1) mile or more from the entrance to the mine or from the bottom of the shaft or slope, a station of suitable dimensions for the use of the fire boss may be erected by the mine foreman in a location approved by the inspector.**



**When a fire boss station is located inside the mine, the fire boss shall enter and sign a report both in the record book kept there and in a record book in the mine office on the surface.**



## **KRS 352.320 Suspension of fire boss - Revocation of certificate**

**Any fire boss who fails to perform his duties, or who makes a false report of the condition of any place in the portion of the mine allotted to him for examination, shall be suspended by the mine foreman, and his name shall be given to the mine inspector for prosecution. If he is found guilty by the board, he shall return his certificate of qualification to the department.**



**Let's review and discuss  
in more detail, the  
purpose and duties of  
the fire boss, also called  
the pre – shift examiner.**





# **KRS 351.010**

**Defines pre-shift examination as the examination of a mine or any portion thereof where miners are scheduled to work or travel, which shall be conducted not more than 3 hours before any on-coming shift**



# Pre – shift examination

## KRS 351.010 (State)

Defines preshift examination as the examination of a mine or any portion thereof where miners are scheduled to work or travel, which shall be conducted not more than 3 hours before any on-coming shift

## 30 CFR 75.360 (Fed)

(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



# Pre-shift Examination

- **Examine for hazardous conditions**
- **Test for methane and oxygen**
- **Determine if air is moving in its proper direction**



# Preshift Examination

- **Examine for hazardous conditions**
  - Loose roof and ribs / other adverse conditions
  - Excessive levels of methane
  - Oxygen deficiency
  - Damaged or improperly installed ventilation controls on the section
  - Dangerous 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

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



# Preshift Examination

- **Air quantity (face)**
  - 3,000 cfm where coal is being cut, mined, drilled for blasting, or loaded
  - Greater quantity if necessary (specified in ventilation plan)
  - Minimum quantity may be required in plan for other working places or faces
  - Quantity determined at or near face end of curtain tubing
    - unless extends beyond last row of permanent supports -- then determined behind curtain or in tubing at or near last row of permanent supports (75.325)



# Preshift Examination

- **The air quantity at the last open crosscut and pillar line must be at least 9000 CFM.**
- **A greater quantity may be required in the plan.**
- **This minimum applies to sections not operating but capable of producing coal by simply energizing the equipment.**



# Preshift Examination

- Locations
  - Roadways, travelways, track haulageways where persons are scheduled to work or travel
  - Belt conveyors used to transport persons and entries where these conveyors are located {75.360 (2)}





# Preshift Examination - Locations

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

- Scope shall include working places, approaches to worked-out areas and ventilation controls in these areas**
- Exam shall include tests of roof, face and rib**



# Preshift Examination - Locations

- Seals along intake air courses where air is used to ventilate working sections
- Entries and rooms developed more than 20 feet deep (off intake airways) without a crosscut connection, or more than two (2) crosscuts deep without permanent ventilation controls (75.360)



# **Preshift Examination – Locations (75.360)**

- **Underground electrical installations**
  - **Transformer stations**
  - **Battery charging stations**
  - **Substations**
  - **Rectifiers**
  - **Water pumps (permanent)**



# **Preshift Examination - Locations**

- High spots along intake air courses where methane is likely to accumulate, if equipment will be operated in area during shift (75.360)**
- Other areas where work or travel is scheduled during oncoming shift**



# Preshift - 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, the examiner shall certify by initials, date and time at enough locations to show that the entire area has been examined.



# Preshift - Recordkeeping

- **Make a record of results of each preshift examination including**
  - **Hazardous conditions and their locations**
  - **Results and locations of air and methane measurements**
    - **Air measurements**
    - **Methane measurements shall be recorded as a percentage of methane**



# Preshift - Recordkeeping

- A record of the pre-shift examination 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 (KRS 352.290),  
or
  - A person designated by the operator (75.363)



# Preshift - Recordkeeping

- If record is made by the designated person, the examiner shall verify by initials and date by or at the end of the shift which the exam was made (75.363)
- 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 by the end of the day ( KRS 352.350), or equivalent official by the end of the mine foreman's or equivalent official's next regularly scheduled work shift (75.363)



# **Let's review some possible hazardous conditions that may be observed by the fire boss or pre-shift examiner:**

- The fan is not operating**
- The fan pressure gage shows a large increase in pressure**
- The air is not following its proper course**
- The oxygen content is below 19.5%**
- The air reading at the last open crosscut is below 9000 cu. ft./min.**



## **Continued: Hazardous Conditions**

- **The air reading on the intake side of the pillar line is below 9000 cu. ft./min.**
- **Brattices/permanent stoppings have been dislodged just outby the belt feeder**
- **Check curtains on section have been knocked down**
- **Face curtains are not installed**



# Continued: Hazardous Conditions

- **Methane content at face is 1% or more**
- **Dangerous/loose roof is observed in the travelway**
- **Roof fall in the travelway**
- **Cribs or timbers have been dislodged in the travelway and have not been re-installed**
- **Hillseams and/or cracks in the roof at the section on both sides of an entry running parallel to the entry**
- **A large kettlebottom is located between the bolts in the L.O.C. of the belt heading**



# Continued: Hazardous Conditions

- **Test holes on the section indicate cracks in the roof at or near the anchorage zone of the roof bolts being installed**
- **The heads of roof bolts have been sheared off by equipment without re-installation or additional support**
- **Danger signs, tags or reflectors, are not installed at the last row of permanent support**
- **Ribs sloughing - indicating coal blocks are taking weight**
- **Bottom is heaving**



# Continued: Hazardous Conditions

- **No fire extinguisher at power center**
- **No rockdust at power center**
- **Inadequate first aid supplies or no first aid kit at power center**
- **No insulation mats at power center cable connections**
- **Cables and receptacles not properly identified at power center**
- **Ground wire between power center and cable trailer damaged or missing**
- **Communication system between section and surface inoperative**
- **An escapeway map is not located at the power center**



# Continued: Hazardous Conditions

- **A lock and tag-out system, necessary for equipment repair, is not in place**
- **Rock dust has not been applied to within 40 feet of the faces**
- **Excessive amounts of loose coal and dust are located on the ribs and roadways**
- **Oil cans, roof bolts and other debris are located by the ribs in the shuttle car roadways**
- **Proper transportation is not available at the section for transporting the injured to the surface**
- **The guard is missing at the chain drive on the belt feeder**



**When hazardous conditions are found by the fire boss or pre-shift examiner, he must take action. He must correct the condition or barricade and danger it off to prevent entry. He must then report his action in the pre-shift book and communicate his findings/actions to the on-coming foreman and other appropriate supervisors.**





**Lets follow a “fire boss,” a certified foreman, as he makes a pre-shift examination of a mine. This examination includes some but not all of the necessary checks to be made, depending on the mining operation.**



**The foreman should always check his gas detection instrument making sure it's properly charged and calibrated.**



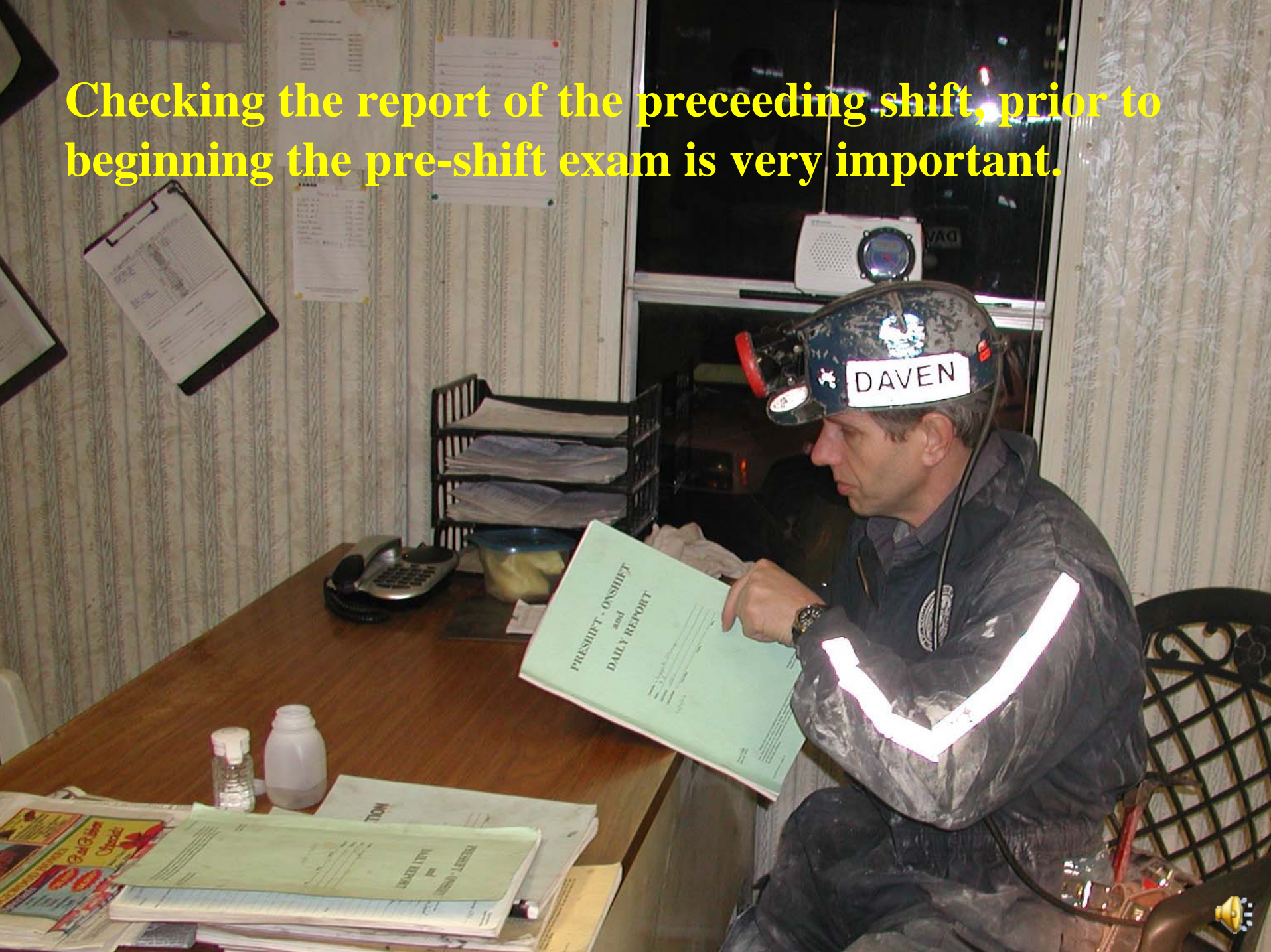
**The anemometer must be checked to see that it is calibrated and working properly.**



**The fire boss must always check in the mine and maintain communications with someone on the surface at all times.**



Checking the report of the preceding shift, prior to beginning the pre-shift exam is very important.



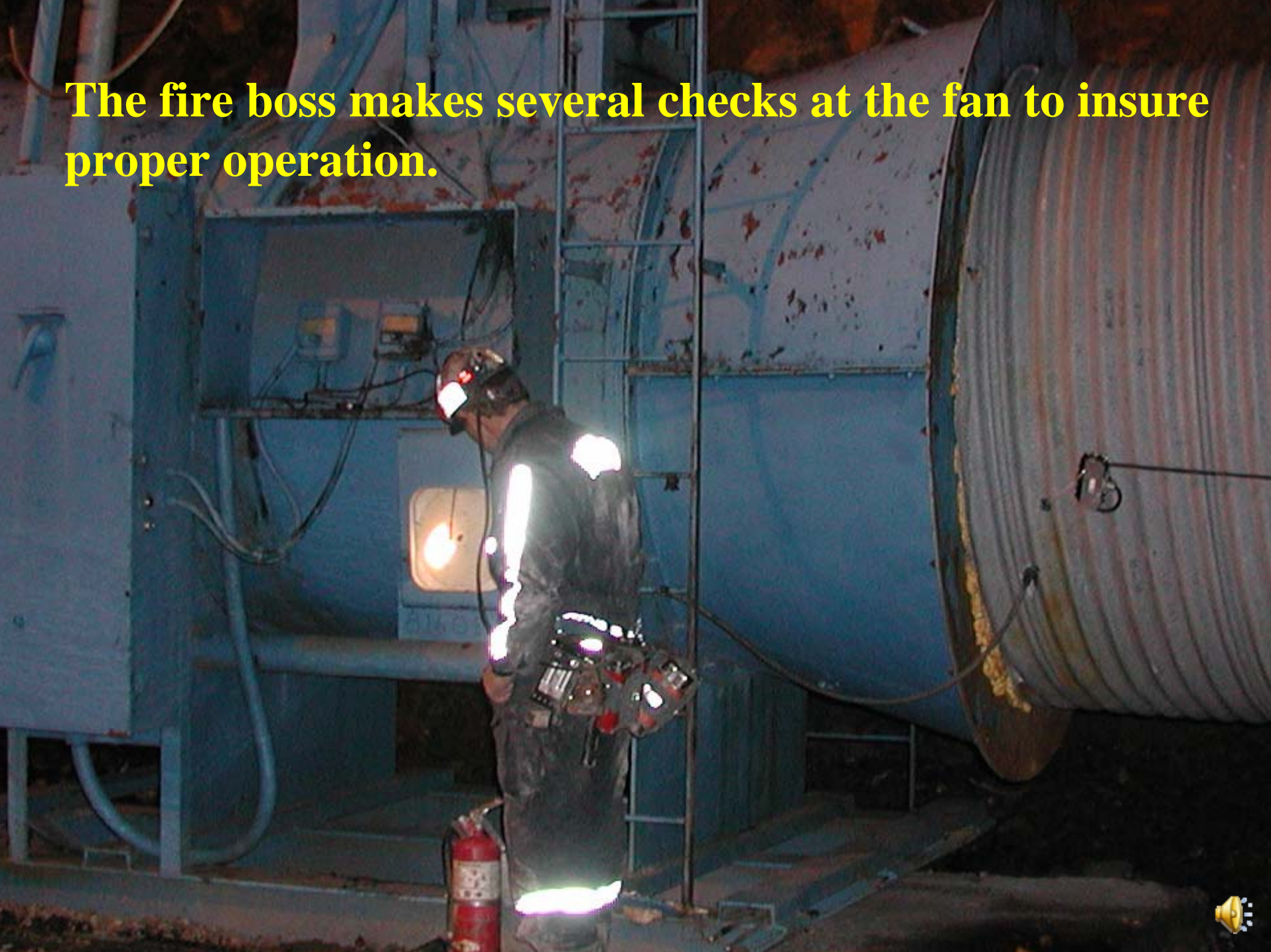
The fire boss is placing his initials, date, and time on the board, which indicates he is beginning the pre-shift examination.



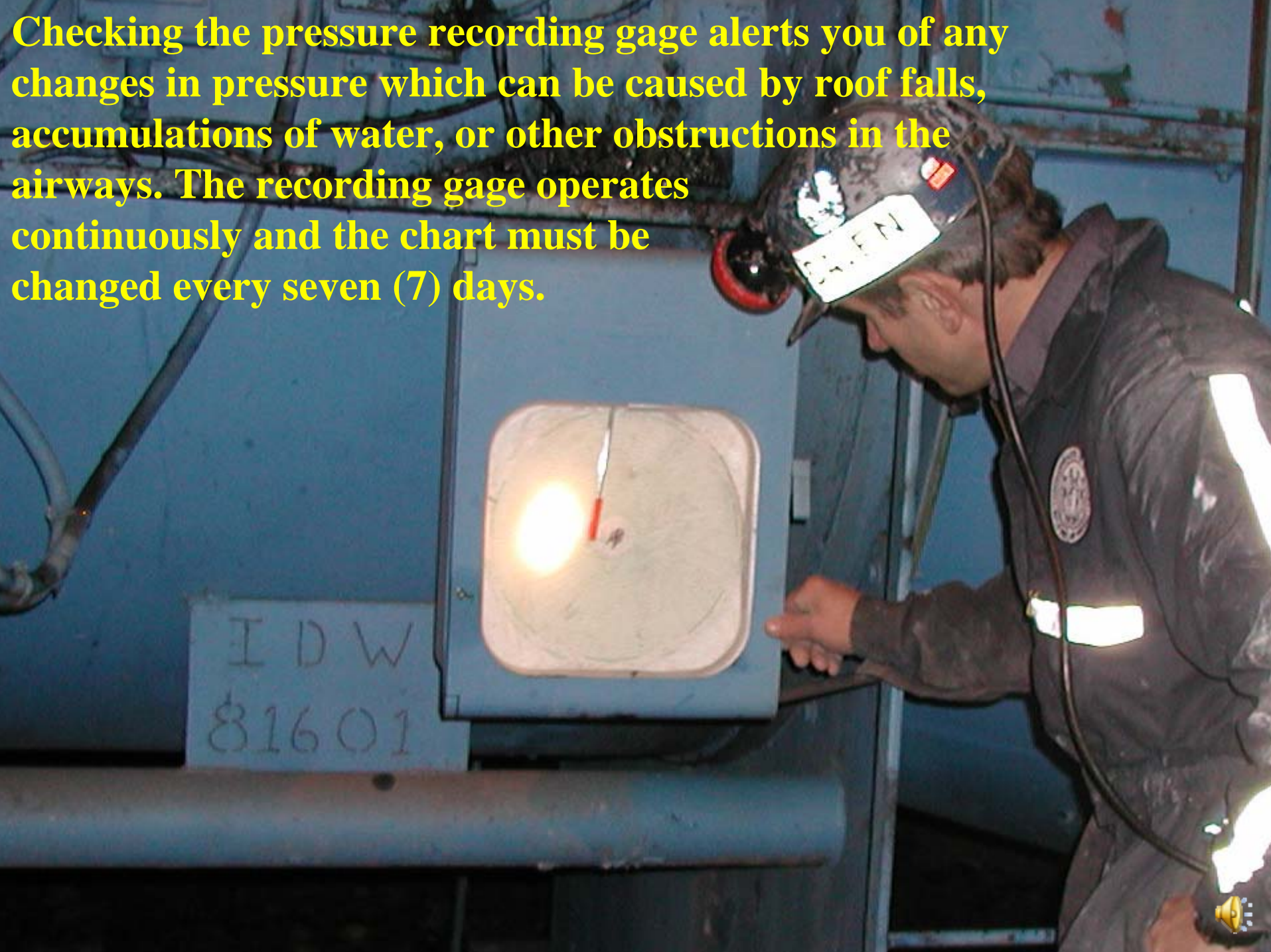
The signal board is located at or near the mine portal.



**The fire boss makes several checks at the fan to insure proper operation.**

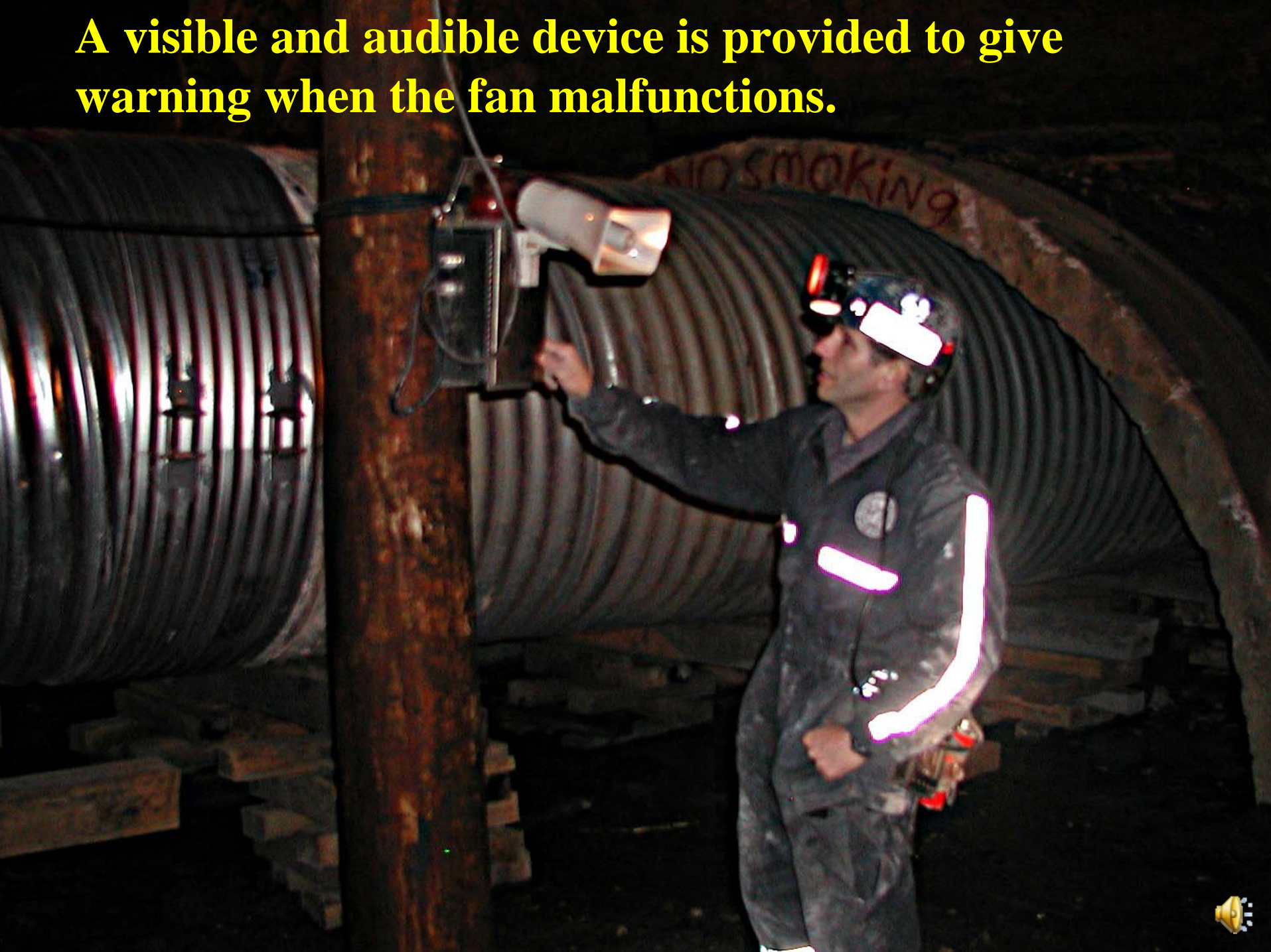


Checking the pressure recording gage alerts you of any changes in pressure which can be caused by roof falls, accumulations of water, or other obstructions in the airways. The recording gage operates continuously and the chart must be changed every seven (7) days.

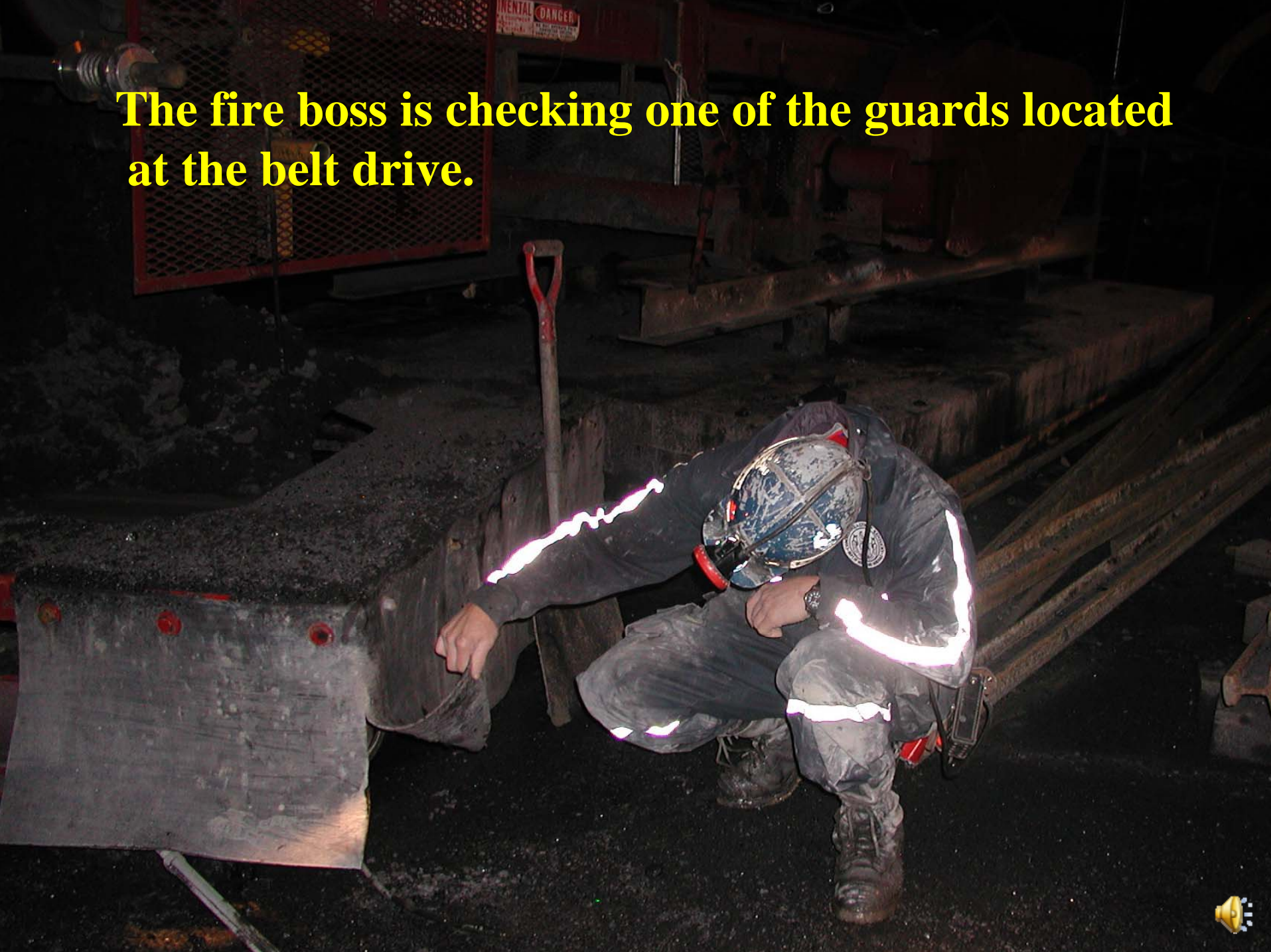




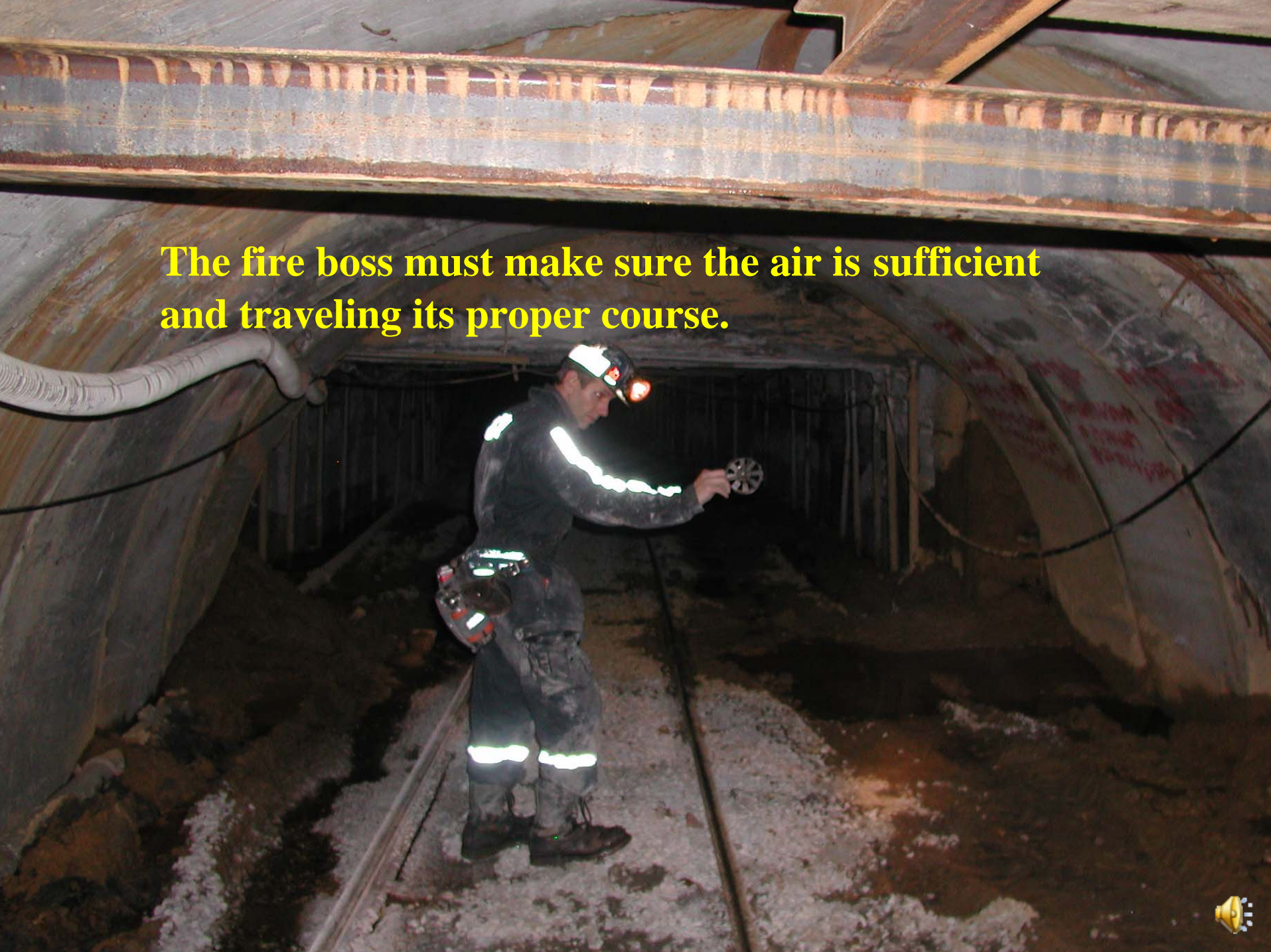
**A visible and audible device is provided to give warning when the fan malfunctions.**



**The fire boss is checking one of the guards located at the belt drive.**



**The fire boss must make sure the air is sufficient and traveling its proper course.**



Sometimes the fire boss operates mobile equipment while making his examination but he must take action on any hazards observed.



**While enroute to the section, the fireboss must check electrical distribution stations. He's checking the fire extinguisher which is located at the entrance to the electrical distribution station.**



**At the electrical distribution center, the fire boss checks for methane gas.**



He also checks the cable plugs and receptacles for proper identification.





**He checks the fire extinguisher**





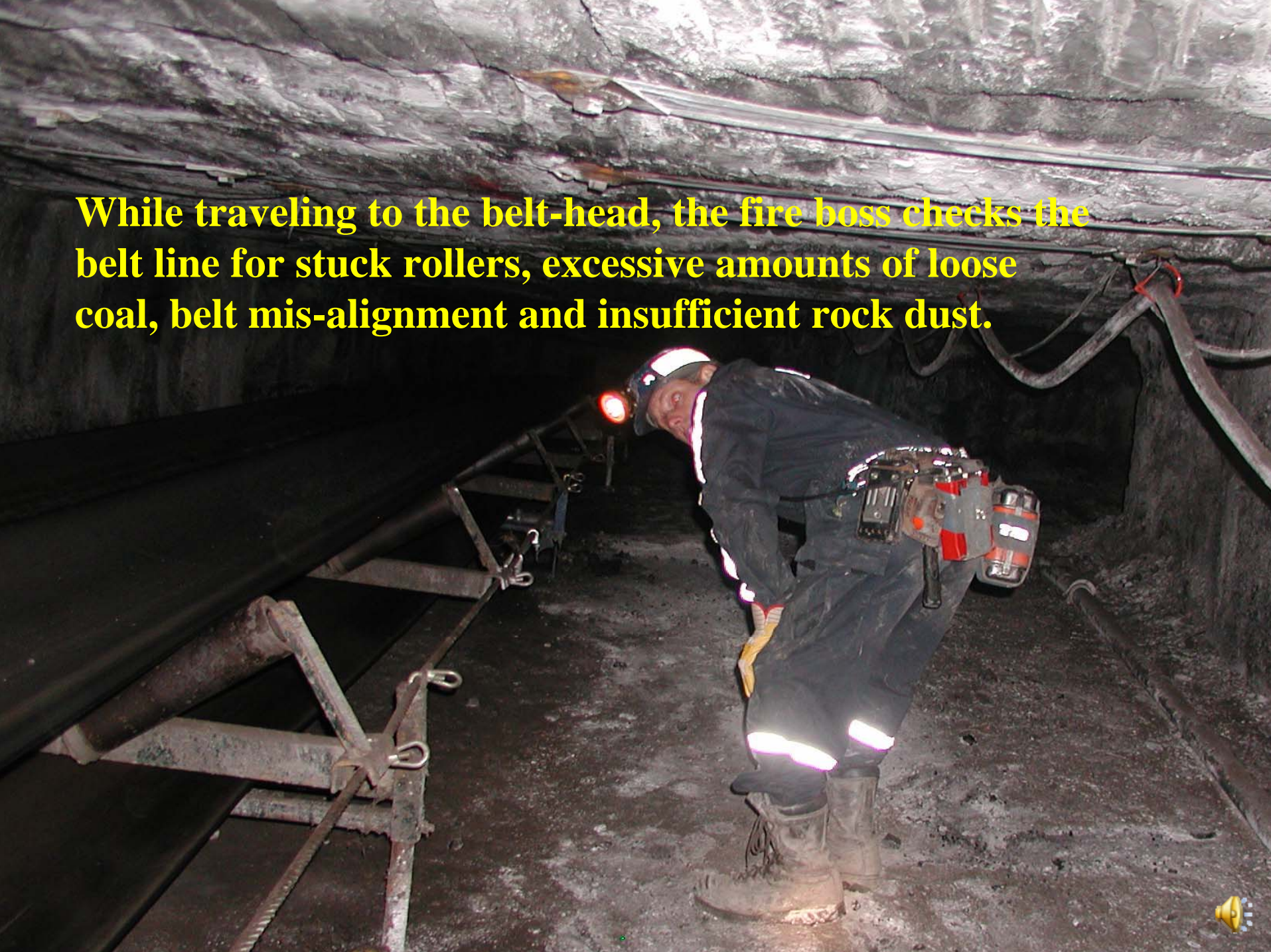
**After completing his exam he records the date, time and initials, on the board for that purpose, located at the electrical distribution station.**



Checking the belt head is the fire boss' next stop



**While traveling to the belt-head, the fire boss checks the belt line for stuck rollers, excessive amounts of loose coal, belt mis-alignment and insufficient rock dust.**



**At the belt head drive unit, he checks the fire extinguisher.**



He checks the fire hose.



**He checks the guards.**



**He checks the belt starter unit for excessive amounts of coal dust.**



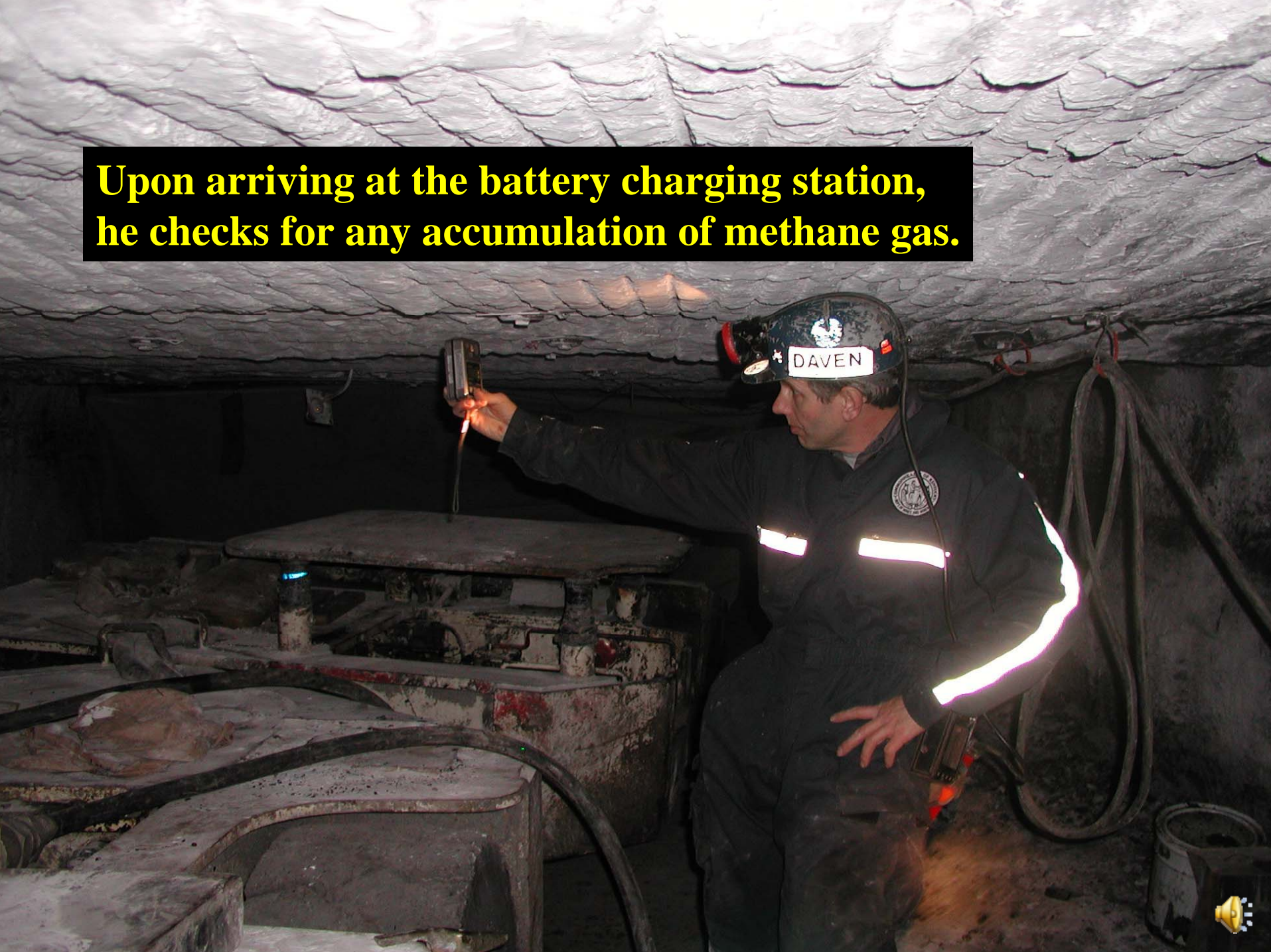


**He checks the phone for proper communication.**





**Upon arriving at the battery charging station, he checks for any accumulation of methane gas.**



**He makes sure that there is a good ground connection for the battery charger.**



**He makes sure that the charging time for the batteries is properly set.**

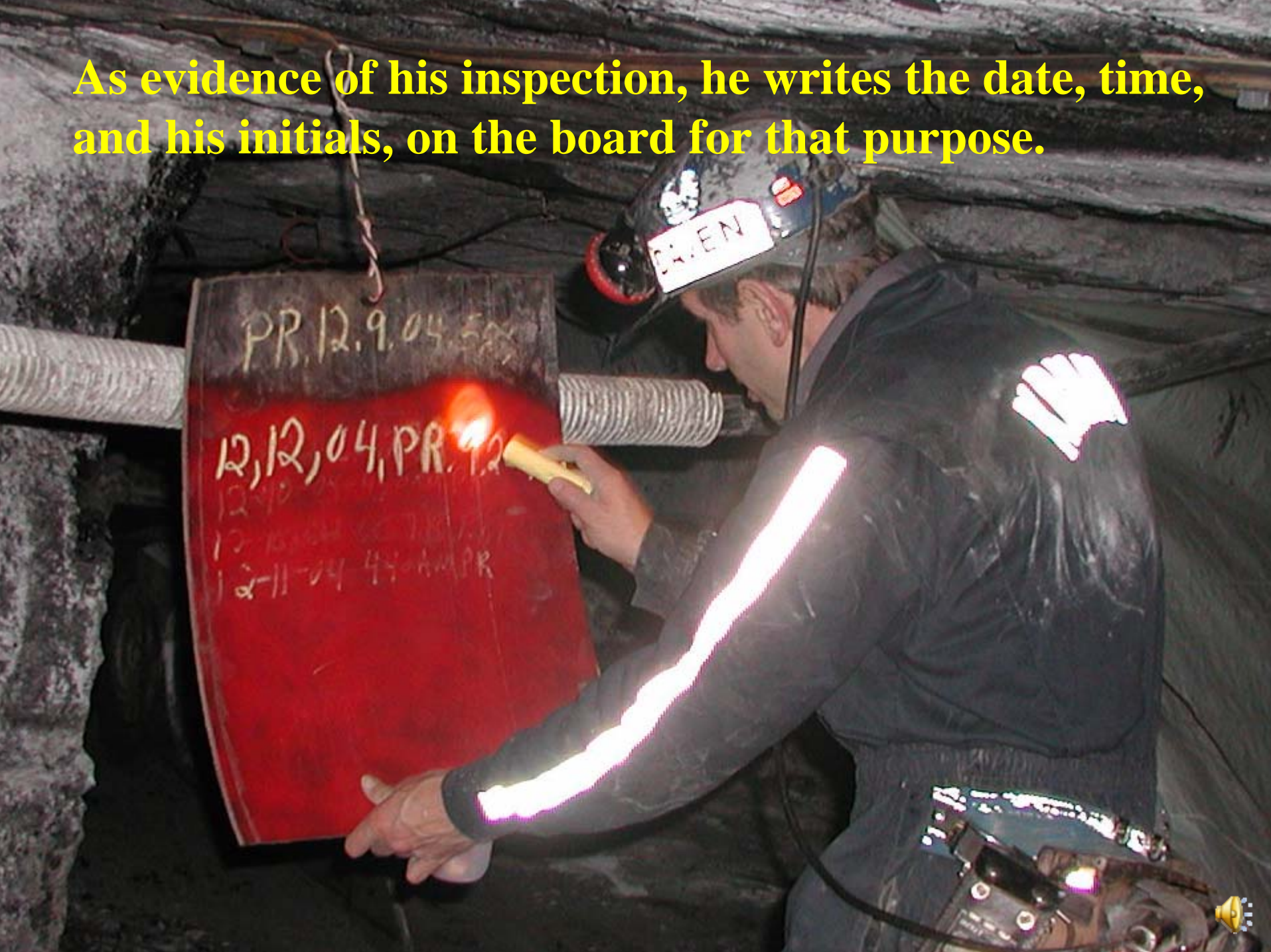


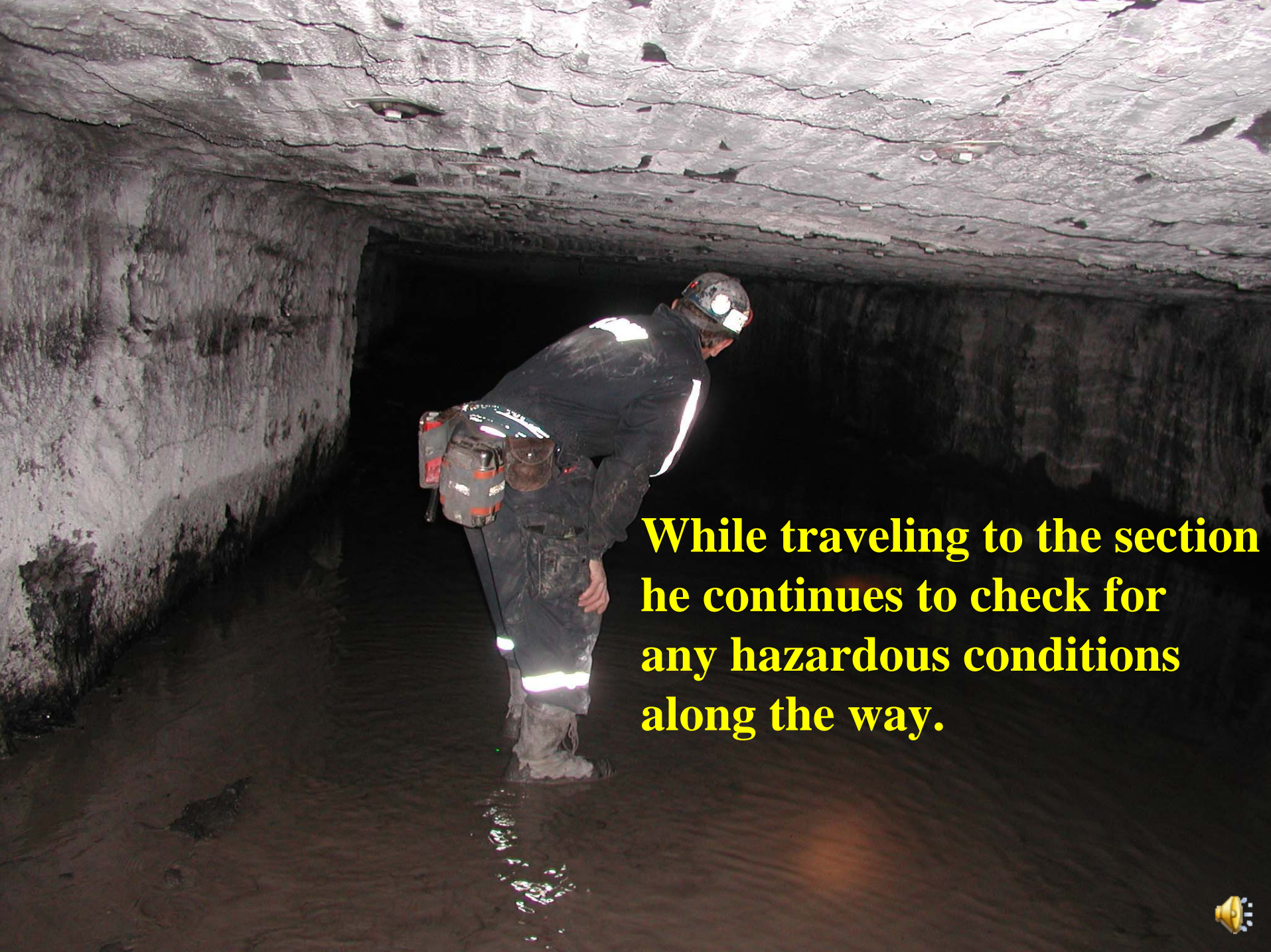


**He inspects the fire extinguisher.**



**As evidence of his inspection, he writes the date, time, and his initials, on the board for that purpose.**





**While traveling to the section he continues to check for any hazardous conditions along the way.**





**Always looking for any loose and abnormal roof conditions.**





**Loose roof will be taken down,  
supported, or “dangered off.”**





**State law requires that rock dust be applied to maintain at all times a minimum percentage of 65% of non-combustible matter to within 40 feet of all faces, including last open crosscuts.**



**After arriving at the section power center, he immediately checks for methane gas.**

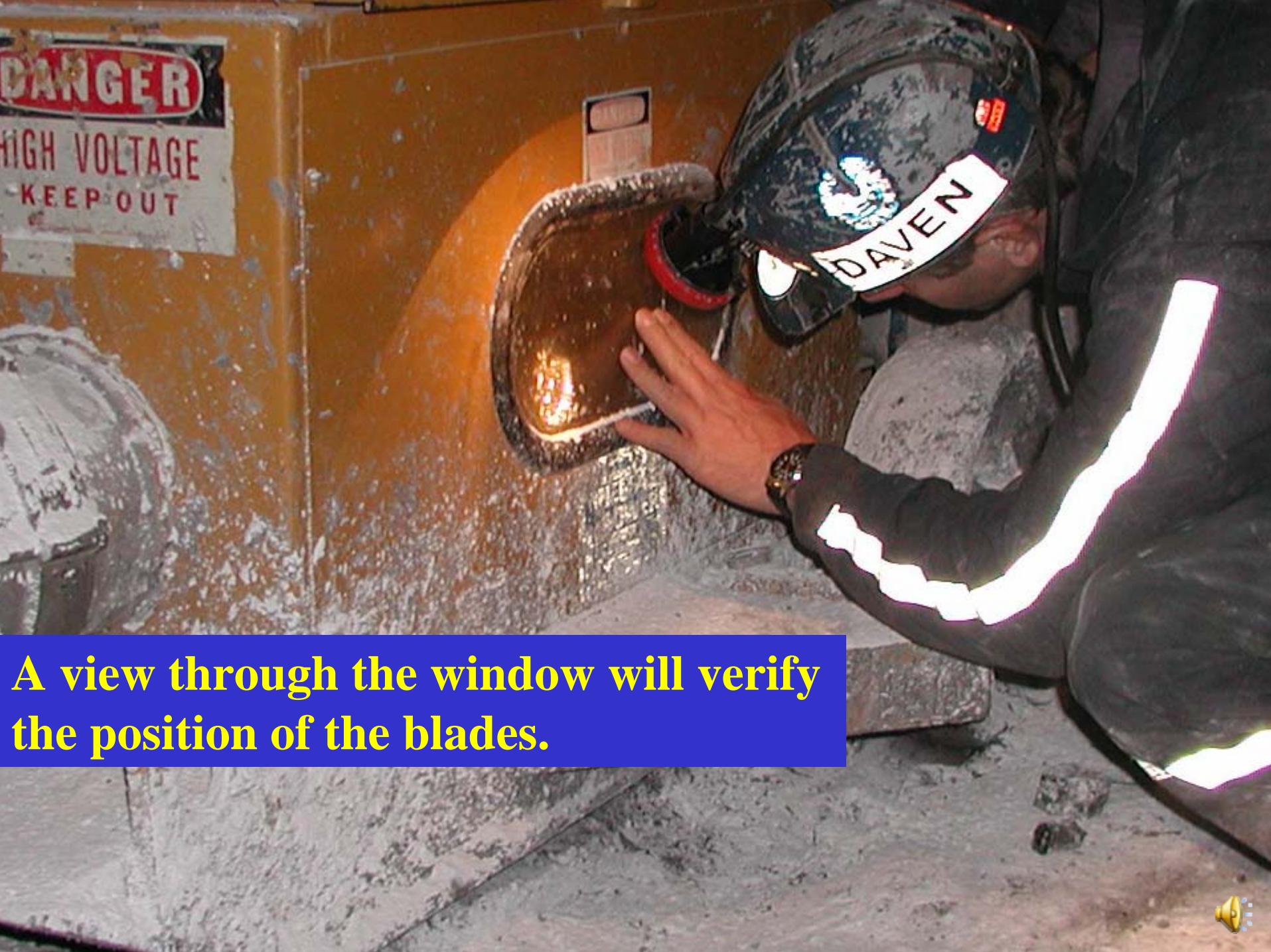


**Rock dust and a fully charged fire extinguisher must be located at the power center at all times.**



The section power center disconnect switch handle should be checked.





**A view through the window will verify the position of the blades.**



**The ground wire between the power center and the trailer loaded with high voltage cable should be inspected.**



**Insulating mats shall be placed in front of disconnecting devices.**



**All face equipment must be de-energized during the pre-shift exam. The fire boss checks for proper identification of all cable plugs, receptacles, and circuit breakers,**





**The lids on the power center must be properly bolted in place at all times.**



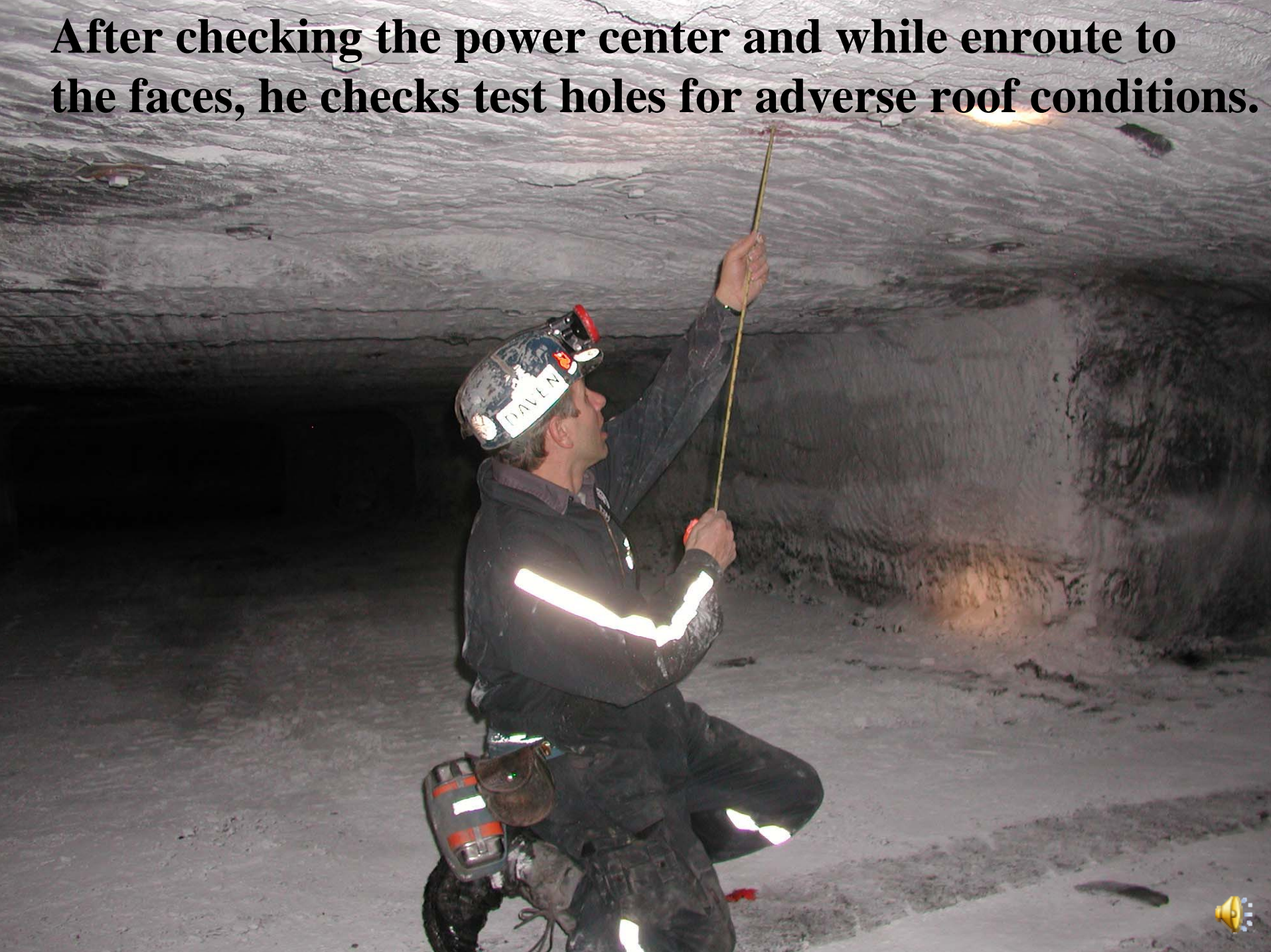
**A danger sign must be posted at the power center location, and communications must be provided and maintained with the surface at all times.**



**The first aid kit located at the power center must be adequately supplied and maintained.**



**After checking the power center and while enroute to the faces, he checks test holes for adverse roof conditions.**



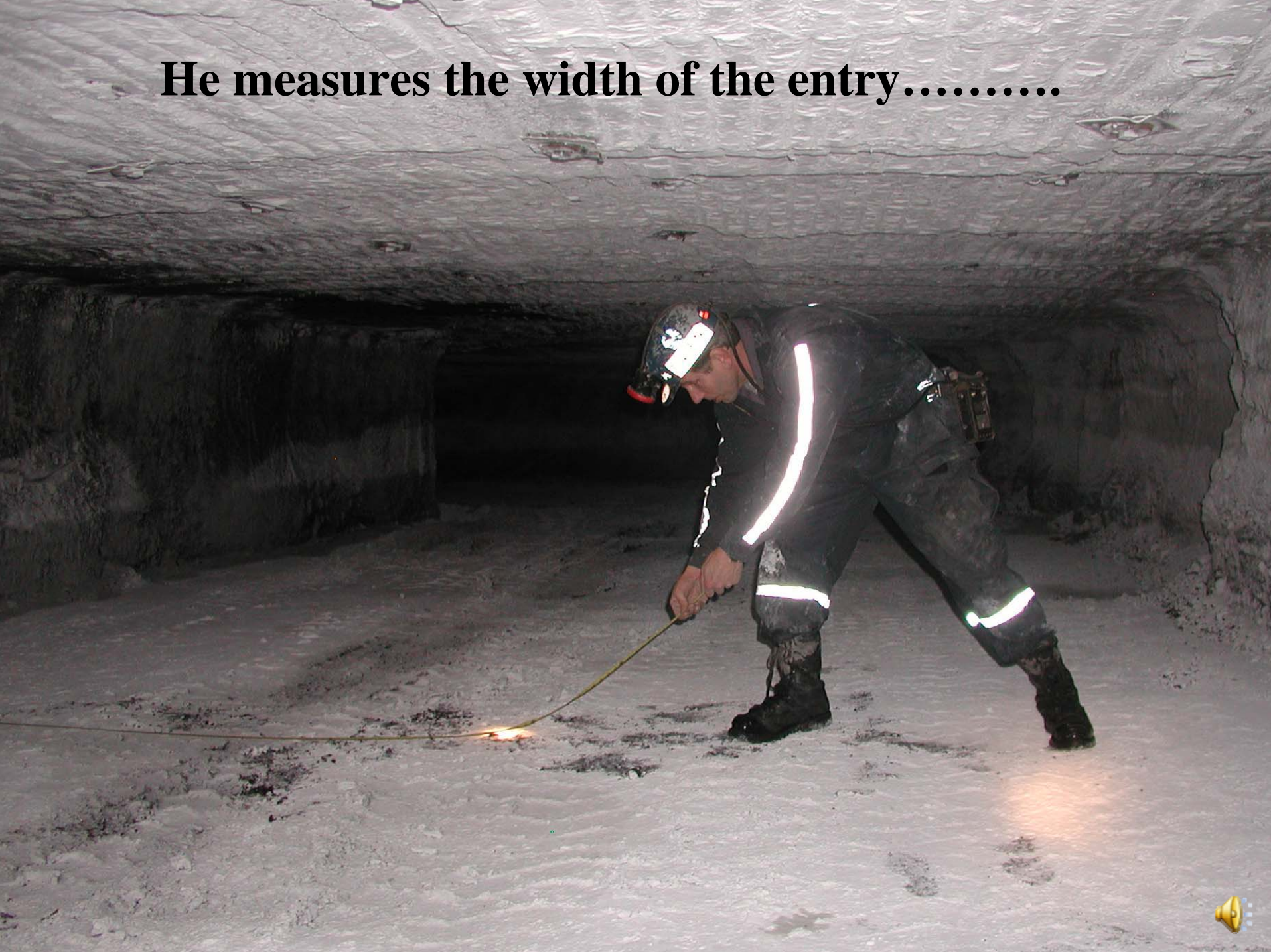
**He makes a note of supplies scattered along the rib line.**



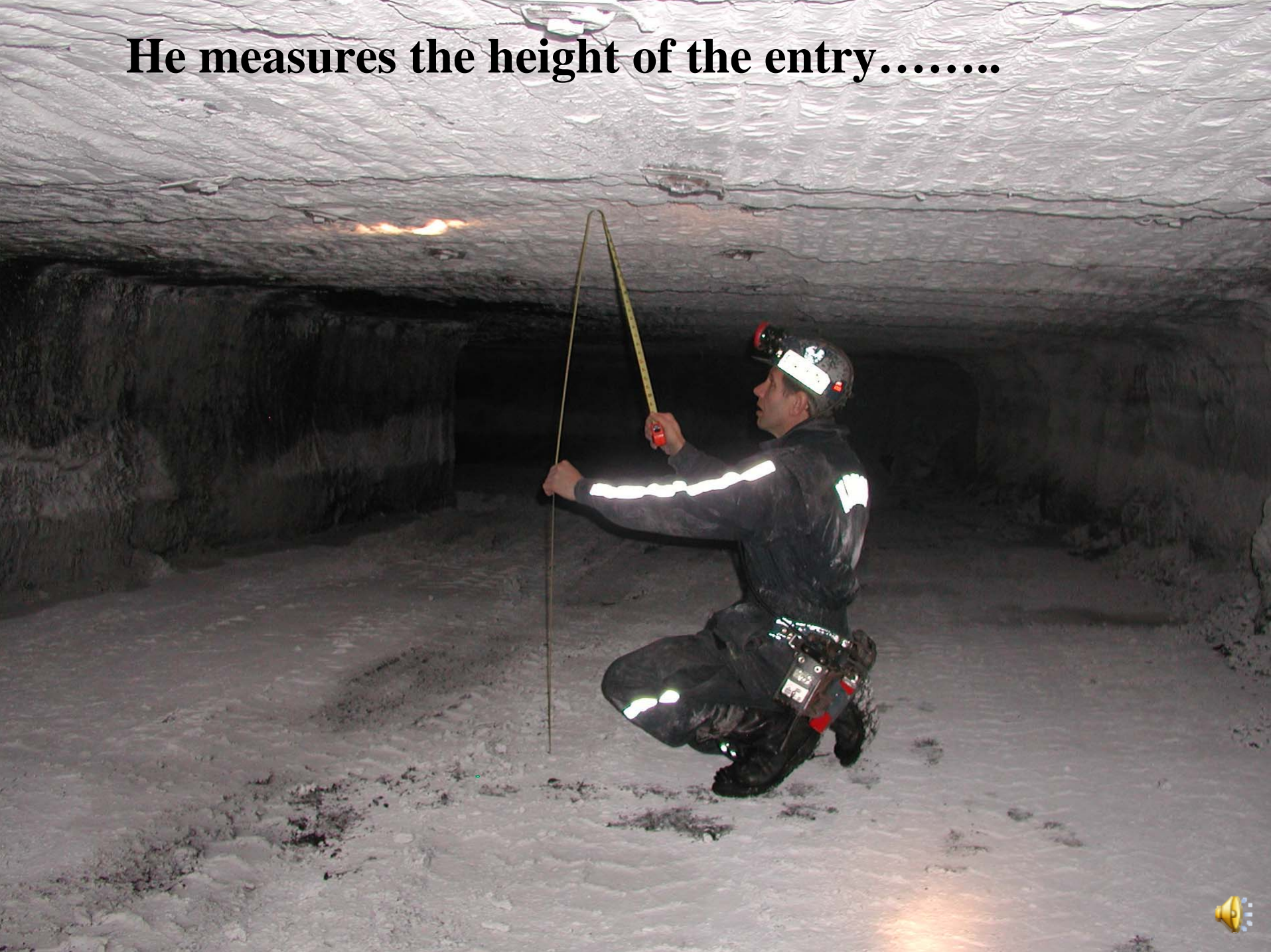
**The fire boss must take an air reading at the last open cross cut on the intake and return. The minimum requirement is 9000 cubic feet of air per minute. He measures the velocity of air with his anemometer, for one minute,**



**He measures the width of the entry.....**



**He measures the height of the entry.....**





**He calculates the volume of air by multiplying the three readings that he measured: the velocity (anemometer reading in feet per minute), the width, and the height of the entry. This gives the volume of air which is in cubic feet per minute.**



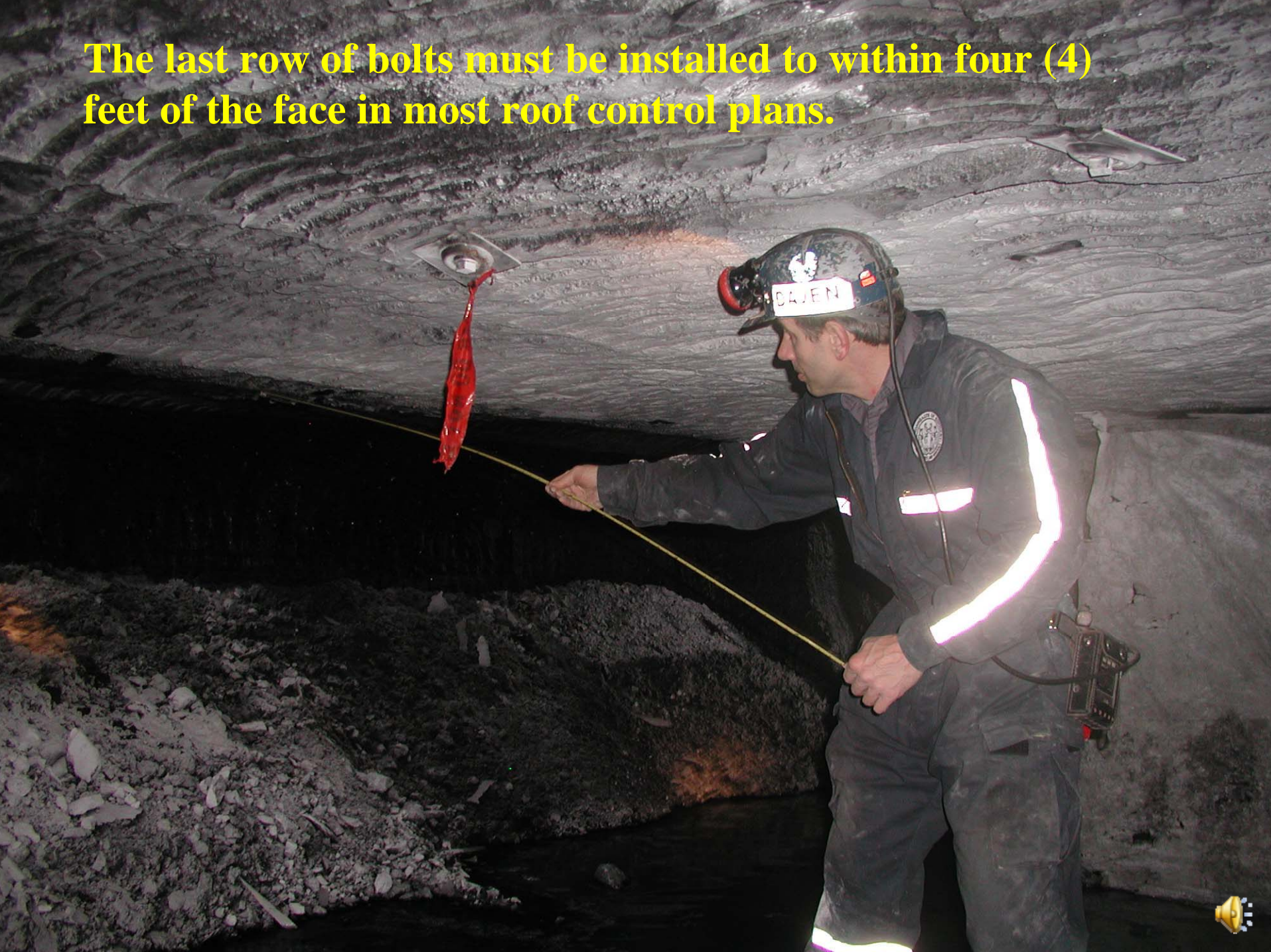
**Complying with the roof control plan requires proper bolt spacing.**



**He must check for accumulations of gas at the face of every working place. One percent (1%) or more requires removal. However, it's a good practice to remove any amounts of methane detected.**



**The last row of bolts must be installed to within four (4) feet of the face in most roof control plans.**



**He makes a note on the measurement, which did not comply with the roof control plan. He will record this in his pre-shift report.**



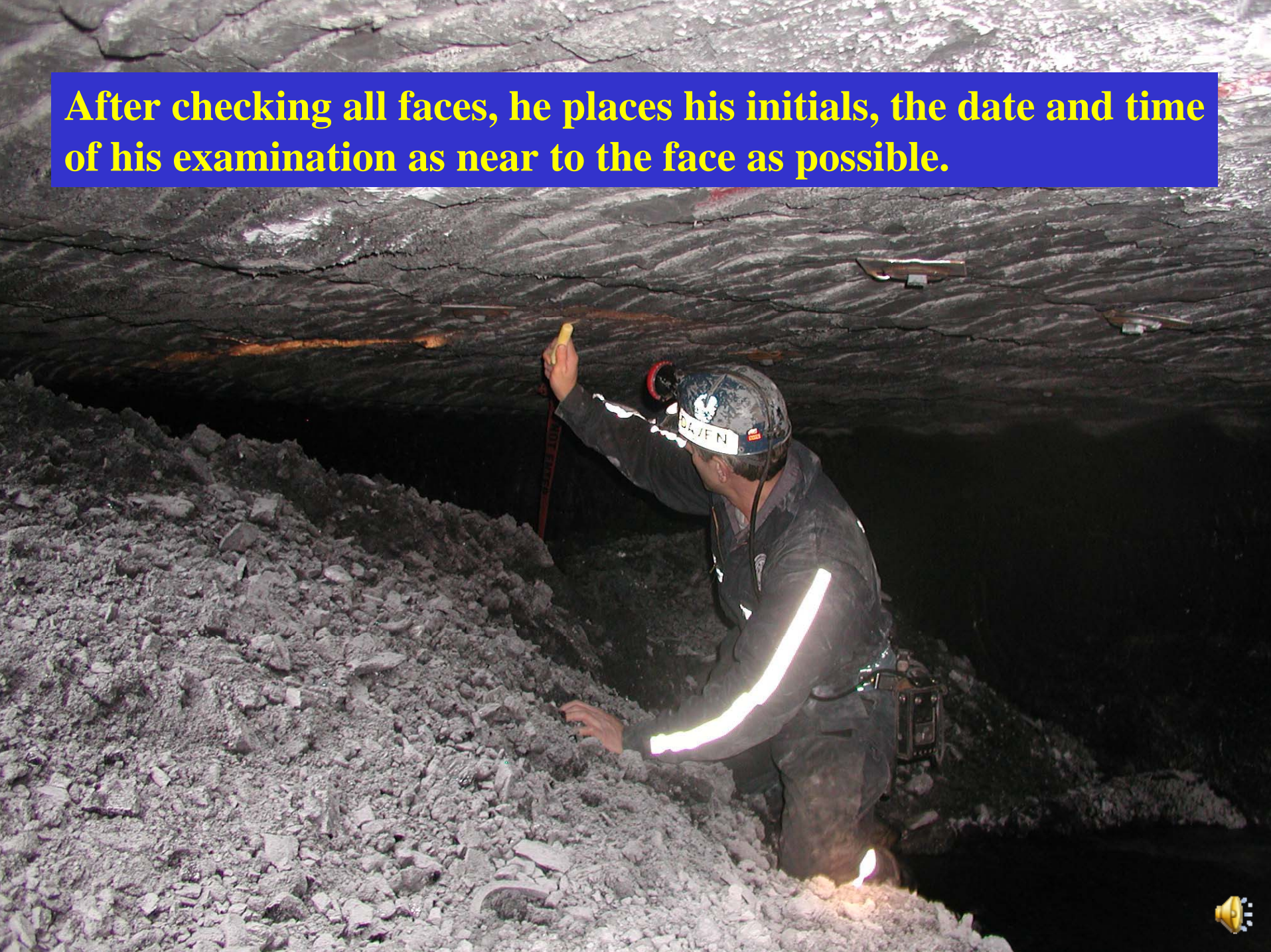
**The fire boss re-installs a check curtain that had been knocked down.**



**As he moves across the section, he looks for hazards, such as this overhanging brow, which will also be recorded in his pre-shift examination report.**



**After checking all faces, he places his initials, the date and time of his examination as near to the face as possible.**





**While checking face equipment cables, he finds a condition that requires a splice.**



**He notes the condition found.....**



And locks out the cable that must be repaired on the next shift.



**He takes an air reading on the return side of the section.**



**He checks the belt feeder area and the guards on the feeder.**



He repositions the fire sensor for proper location at the belt feeder.







After completing the pre-shift examination, it is indicated on the signal board at the portal entrance.



After completing his pre-shift examination, the fire boss checks out of the mine.

Liggett #2 Mine

	<u>001</u>			<u>002</u>	
	IN	OUT		IN	OUT
1 <sup>st</sup>	—		1 <sup>st</sup>	—	—
2 <sup>nd</sup>	—			—	—
3 <sup>rd</sup>			3 <sup>rd</sup>		
Vistor	—	—	Vistor	—	—





He reviews his findings with the on-coming foreman...



**The fire boss should take the necessary time to discuss all hazardous conditions found, their locations, action taken, and action to be taken.**



**He then records all of his findings in the pre-shift book located in the mine office.**



**We have reviewed the laws and regulations regarding preshift examinations, and we have observed a fireboss performing his duties at a typical underground mine.**



**As a mine foreman, you will be required to make preshift inspections. The class will now participate in a Pre-shift / Fire boss Map exercise. This exercise will help to increase your knowledge in performing the duties of a fireboss.**

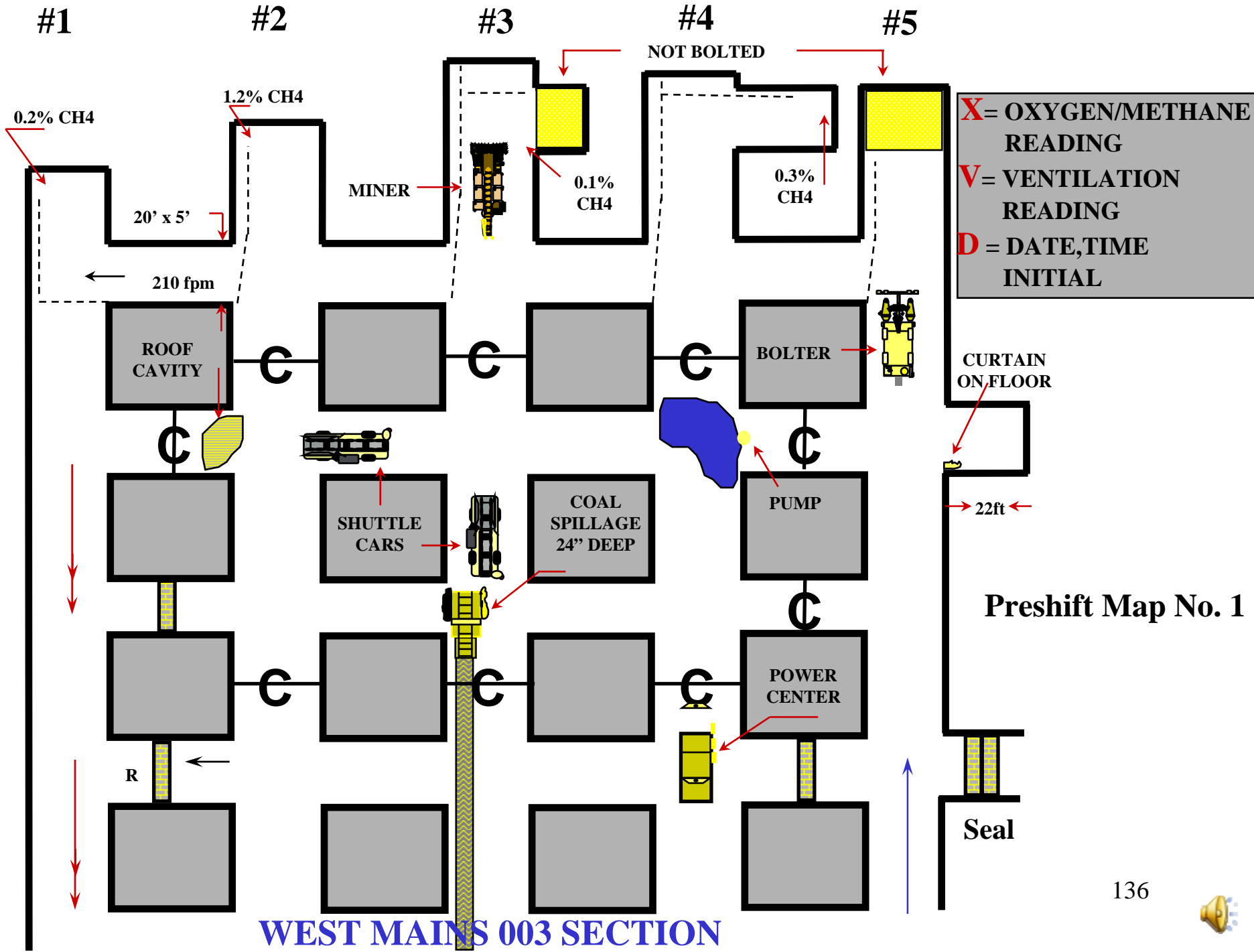


**You will be required to complete an exercise similar to this on your mine foreman certification examination.**



**The instructor will now  
distribute copies of Map  
No. 1 to all class  
participants.**







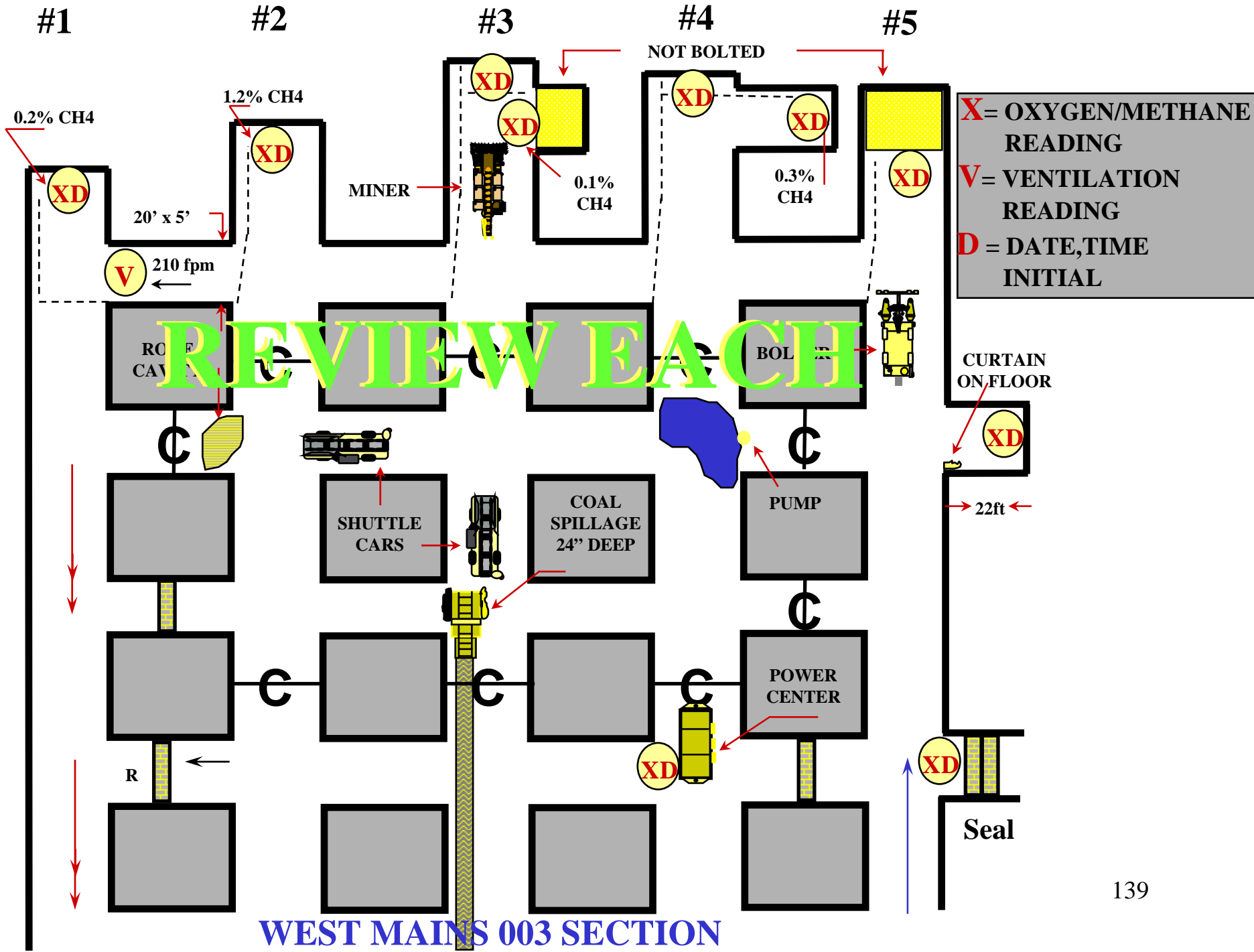
# Preshift Map Exercise Instructions

- **Write an “X” on the map at places where you would take oxygen and/or methane readings.**
- **Write a “V” on areas of the map where you would take ventilation readings.**
- **Write a “D” at locations on the map where you would mark your date, time, and initials.**
- **Instructors: Keep this slide on the screen until everyone completes the exercise and then advance to the next slide.**



- **Remember, locations for gas checks are shown by the letter “X”.**
- **Locations where you measure ventilation are shown by the letter “V”.**
- **Locations for showing initials, date, and time are shown with the letter “D”.**
- **The following slide shows the checks and locations to be made during the preshift examination. After advancing to the next slide - (left) click the mouse to show the correct locations and checks to be made.**





**On the previous slide, the map showed a ventilation check being made only on the left side of the section at the last open crosscut. Keep in mind, however, that a check for ventilation must also be made on the right side at the last open crosscut.**



**Hazardous conditions are those that are *likely* to cause death or serious personal injury to persons exposed to such conditions.**

**The following slide lists the conditions that were shown on the map.**



**Rock dust has been applied to within 20 feet of the face in No. 2 Entry.**

**There is some coal spillage approximately 24” in depth and has accumulated on both sides of the feeder.**

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

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

**Water has accumulated 3” to 6” deep in the roadway- 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).**

**The off standard shuttle car was left loaded with coal.**

**The mine track is 8 breaks outby the loading point.**



**Remember, hazardous conditions are those that are *likely* to cause death or serious personal injury to persons exposed to such conditions.**

**After advancing to the next slide, (left) click the mouse to see which conditions are considered to be hazardous.**



# Check each box that is a hazardous condition.

- Rock dust applied to within 20 feet of the face in No. 2 Entry.
- Coal spillage approximately 24" in depth has accumulated on both sides of the feeder.
- 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 has accumulated 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).
- The off standard shuttle car was left loaded with coal
- Mine track 8 breaks outby loading point..



**After making a preshift examination, the fireboss must record his findings in the preshift/on- shift book located on the surface.**



**Let's assume that John Jones made a preshift examination on January 28, 1998, between 2:00 and 3:15 P.M. and called out his report to Jim Jones at 3:20 P.M.**

**We will also assume that he observed the conditions on the section that we recently reviewed. His preshift examiner's report would appear as follows:**



# Preshift Certified Examiner's Report

**The next two slides show the Preshift Certified Examiner's Report divided into two sections.**

**Top section: Information and Locations**

**Bottom section: Air Measurements and Signatures**



**PRESHIFT-CERTIFIED EXAMINER'S REPORT**

Date of Examination: <b>January 28, 1998</b>	Time From: <b>2:00</b> AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> TO: <b>3:15</b> AM <input type="checkbox"/> PM <input checked="" type="checkbox"/>
Section/Area: <b>West Mains - 003</b>	Reported Outside? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Time: <b>3:20AM</b> <input type="checkbox"/> PM <input checked="" type="checkbox"/>
Reported By: <b>John Jones</b>	Received By: <b>Jim Smith</b> <b>J.J. 1/28/98</b> (INITIAL)

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

Location	Hazardous Condition	Action Taken	CH <sub>4</sub>
1. #1	None		0.2%
2. #2	Line curtain down - 1.2% CH <sub>4</sub> in face area	Put curtain up- methane cleared	1.2% reduced to 0.0%
3. #3 3R	Outby corner of intersection six roof bolts dislodged	Area dangered off until bolts replaced	0.0% 0.1%
4. #4 4R	Two breaks outby face pump hot with exposed conductor	Pump de-energized and removed from mine	0.0% 0.3%
5. #5	None	None	0.0%
6.			
7.			
8.			
9.			
10.			

## Air Measurements

Location	CFM	Location	% CH <sub>4</sub>
<b>LOCC #1/#2</b>	<b>21,000</b>		
LOCC	* Longwall Intake Entry(ies)	* Intake End Pillar Line	* LOCC Where Equipment Being Installed or Removed

### Velocities

Longwall Headgate:	Longwall Tailgate:
--------------------	--------------------

**Remarks: Seal on intake examined, 0.0% CH<sub>4</sub> and 20.3% O<sub>2</sub>. Room of intake examined, 0.0% CH<sub>4</sub> and 20.2% O<sub>2</sub>. Curtain hung in place.**

SIGNED BY PRE CERTIFIED EXAMINER	<b>Jan. 28, 1998</b>	<b>01234</b>
	<b>Date</b>	<b>Certification Number</b>
Countersigned by Mine Foreman	<b>Jan. 28, 1998</b>	<b>07950</b>
	<b>Date</b>	<b>Certification Number</b>
Countersigned by Operator/Agent	<b>Jan. 28, 1998</b>	
	<b>Date</b>	

THIS RECORD TO BE RETAINED FOR ONE(1) YEAR



**The following slide provides instructions for completing a preshift examiner's report. This exercise will help prepare class participants for the mine foreman certification examination.**

**Instructors: after reviewing the following slide - distribute copies to all participants for their completion. Provide assistance as needed.**



Use Indelible  
Pencil or Ink

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

Report shall be  
signed when made

Date of Examination \_\_\_\_\_, 20\_\_\_\_ Section or Area Examined: \_\_\_\_\_

Time of Examination: From: \_\_\_\_\_ a.m. or p.m. To: \_\_\_\_\_ a.m. or p.m.

Was this report phoned to outside?: Yes \_\_\_\_\_ No \_\_\_\_\_

By Whom?: \_\_\_\_\_ Time: \_\_\_\_\_ a.m. \_\_\_\_\_ p.m.

Report received by: \_\_\_\_\_  
(Signed)

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

	Location	Violation or Hazardous Condition %CH <sub>4</sub> %O <sub>2</sub>	Action Taken
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

**Air Measurements**

Location	CFM	Location	CFM

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This is to certify that: (a.) This section of the mine was properly examined by me, (b) all violations of 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: \_\_\_\_\_  
Pre-Shift Mine Examiner Certificate No. \_\_\_\_\_ Assistant Foreman Certificate No. \_\_\_\_\_

Countersigned by: \_\_\_\_\_  
Mine Manager, Mine Foreman

\_\_\_\_\_  
Assistant Foreman

\_\_\_\_\_  
Superintendent or Assistant



**Complete this preshift report, by using the following information:**

**You are the fireboss and have just examined 001 section. The date is Jan. 11, 2006 and you made your examination between 5:00 A.M. & 6:30 A.M. You observed the following violations and hazardous conditions and measured the air. You called out the information to John Smith, the shift foreman, at 6:35 A.M. You signed the report later in the day and your certificate # is A-001-06.**

**•Curtain down in face of #1 entry - 2% CH<sub>4</sub> hung curtain – cleared out gas**

**•Conductor exposed on #1 car cable, approx. 50 ft from power center, in #3 entry - locked & tagged out car**

**•Pulled loose roof between rib and bolts inby LOCC in #4 entry on right side**

**•Water more than knee deep in face of #5 entry – pumped out water**

**•15,460 CFM Air at LOCC, between #1& #2**

**•17,575 CFM Air at LOCC, between #4 & #5**

The order in which the conditions are reported by class participants may differ with this report but the content should be the same.

Instructors: Elaborate and review with class participants as needed.

Use Indelible  
Pencil or Ink

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

Report shall be  
signed when made

Date of Examination January 11, 20 06 Section or Area Examined: 001

Time of Examination: From: 5:00 (a.m.) or p.m. To: 6:30 (a.m.) or p.m.

Was this report phoned to outside?: Yes X No \_\_\_\_\_

By Whom?: (Student Name) Time: 6:35 a.m. \_\_\_\_\_ p.m.

Report received by: John Smith  
(Signed)

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

	Location	Violation or Hazardous Condition %CH <sub>4</sub> %O <sub>2</sub>	Action Taken
1.	Face of Number 1 Entry	Curtain down - 2% CH <sub>4</sub>	Hung Curtain - Cleared Gas
2.	#3 Entry, 50 ft from P.C.	#1 Car cable - Conductor exposed	Locked/Tagged #1 Car
3.	#4 Entry, Inby LOCC	Loose roof on right rib	Pulled loose roof
4.	#5 Entry Face	Water - Over knees	Pumped water
5.			
6.			
7.			
8.			
9.			
10.			

**Air Measurements**

Location	CFM	Location	CFM
LOCC between #1 & #2	15,460 CFM		
LOCC between #4 & #5	17,575 CFM		

Remarks: (Use this space for clarification and other necessary information/communication)

This is to certify that: (a.) This section of the mine was properly examined by me, (b) all violations of 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: (Student Name) A-001-06  
Pre-Shift Mine Examiner Certificate No. Assistant Foreman Certificate No.

Countersigned by: \_\_\_\_\_  
Mine Manager, Mine Foreman

Assistant Foreman

Superintendent or Assistant





# Oral Review



# **As a mine foreman, your responsibilities will include but not limited to the following:**

- Directing your workforce in the areas of: safety and production**
- Complying with all mining plans**
- Complying with all state and federal regulations**
- Complying with your company's rules and regulations**



**Define “licensee?”**



**"Licensee" means any owner, operator, lessee, corporation, partnership, or other person who procures a license from the department to operate a coal mine;**



**Define “operator?”**



**"Operator" means the licensee, owner, lessee, or other person who operates or controls a coal mine;**



**Define “mine foreman?”**



**"Mine foreman" means a certified person whom the licensee or superintendent places in charge of the workings of the mine and of the persons employed therein;**





**Define “assistant mine foreman?”**



**"Assistant mine foreman" means a certified person designated to assist the mine foreman in the supervision of a portion or the whole of a mine or of the persons employed therein;**



**Define “fire boss?”**



**"Fire boss" (often referred to as mine or pre-shift examiner) means a person certified as a mine foreman or assistant mine foreman who is designated by management to examine a mine or part of a mine for explosive gas and other dangers before a shift crew enters;**



**Does Kentucky State law  
require coal miners to be  
supervised by a certified  
foreman?**



**Yes, all coal miners in the state of Kentucky are required to be under the supervision of a certified mine foreman.**



**What are the requirements to become certified as a mine foreman in the state of Kentucky?**



# **Certified foreman requirements:**

## **(KRS 351.120)**

- You must have five (5) years' practical underground coal mining experience acquired after achieving the age of eighteen (18).**
- At least one (1) year of this experience must be on an active working section of an underground mine.**
- You must successfully complete an examination administered by the Commissioner (with at least 80 percent efficiency)**





**A person holding a four (4) year degree in mining engineering from a recognized institution shall be credited with the equivalent of how many years of practical experience in coal mines when applying for any mine foreman or assistant mine foreman certificate?**



**Two years**



**A person holding an associate degree in mining from a recognized institution shall be credited with the equivalent of how many years experience when applying for a mine foreman certificate?**



**One year**



**What is a pre-shift  
examination / inspection?**



# Pre – shift examination

## KRS 351.010

Defines preshift examination as the examination of a mine or any portion thereof where miners are scheduled to work or travel, which shall be conducted not more than 3 hours before any on-coming shift

## 30 CFR 75.360

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



**What is the purpose of a pre-shift inspection?**



**The purpose of the pre-shift inspection is to accurately assess the conditions of the mine and take the necessary action to correct any un-safe and hazardous conditions found. This will help to provide a safe working place for the workers and reduce the chance for accidents and injuries.**





**When is a certified foreman  
or fire boss required to make  
a pre-shift examination?**



**A certified foreman or fireboss is required to carefully examine the mine workings within three (3) hours before each shift enters the mine.**



**Where shall the fire boss examination be made?**



# **The fire boss examination shall be made at:**

- **Every working place**
- **All places adjacent to live workings**
- **Every roadway where persons are required to work or travel**
- **All abandoned panels on the intake**



**At what other locations shall a fire boss examination be made:**



# **A fire boss examination shall also be made at:**

- **Every set of seals on the intake**
- **All roof falls near active workings on the intake and on the working sections**



**What are the  
three major  
checks that a fire  
boss must  
make?**



# The fire boss must make the following checks:

- Examine for hazardous conditions
- Test for methane and oxygen
- Determine if air is moving in its proper direction





# Preshift Examination

**Examine for hazardous conditions, such as:**

- **Loose roof and ribs / other adverse conditions**
- **Excessive levels of methane**
- **Oxygen deficiency**
- **Damaged or improperly installed ventilation controls on the section**
- **Dangerous 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**



**Can a fire boss' (pre-shift examiner) certification be suspended or revoked?**



**Yes, KRS 352.220, states that any fire boss who fails to perform his or her duties, or who makes a false report of the condition of any place in the portion of the mine allotted to him for examination, shall be suspended by the mine foreman, and his name shall be given to the mine inspector for prosecution. If he is found guilty by the board, he shall return his certificate of qualification to the department.**



**Let's review some cases where foremen have been disciplined for failing to perform their duties as required by State and Federal law.**



**1. KDMM v. David Sturgill & Paul Clevinger Docket No. 01-MSRC-001 filed: 11/16/01 subject: continuous miner operator killed in roof fall because company was conducting pillar operations "inby", in violation of pillar plan; status: 4-day trial; MSRC issued decision on 3/28/03: underground mine foreman's certificates of Sturgill & Clevinger each revoked for 4 years;**



# David Sturgill & Paul Clevinger..... Continued

Sturgill & Clevinger appealed the MSRC's decision to Franklin Circuit Court on 4/2/03; KDMM's motion to dismiss the appeal was granted by the Court on 5/23/03; Defendants' motion to alter, amend or vacate the order of dismissal was denied by the Court on 7/10/03;

Sturgill & Clevinger have appealed the order of dismissal to the Kentucky Court of Appeals



**2. KDMM v. Charles Hensley. Larry Ison. James Helton. Verling Hall & Lawrence Vanover Docket No. 01-MSRC-002 filed: 11/21/01 (consolidated with 02-MSRC-007) subject: repairman (not a certified electrician) fatally electrocuted while performing electrical work on energized splice box; status: settlements have been reached with Hall (5 years revocation of foreman's certificate),**



**Helton (5 years revocation of electrician's certificate), Hensley (2 years revocation of foreman's certificate), and Vanover (probation of underground mine foreman's certificate for 2 years); 2-day trial concerning only Ison; MSRC issued decision on 5/13/03, revoking Ison's underground mine foreman's certificate for 18 months (no appeal filed)**





**6. KDMM v. Billy Wayne Mize & Lanious Mize  
Docket No. 02-MSRC-006 filed: 4/25/02  
subject: section foreman illegally wired roof  
bolting machine into pressure pump,  
received electrical shock; after the foreman  
(Billy W. Mize) was taken to hospital, mine  
superintendent (Lanious Mize) allowed roof  
bolting machine to remain wired in unsafe  
manner; status: default judgment granted;  
Billy Mize's electrician's certificate revoked  
for 3 years and underground mine foreman's  
certificate revoked for 2 years; Lanious  
Mize's underground mine foreman's  
certificate revoked for 3 years**



**1. KDMM v. David Gist. Alfred Gibson. Roland Daugherty. Freddie Jones & Charles Moore Docket No. 03- MSRC-001 filed: 1/31/03 subject: miners drilling, shooting and hauling coal under unsupported mine roof; status: settlement agreements with all 5 Respondents approved by Commission: Gist (suspension of underground mine foreman's certificate ...**



**for minimum of one year; must re-take and pass underground mine foreman's examination before suspension will be lifted and foreman's certificate reinstated); Gibson and Daugherty (shotfirer and drill operator's certificate suspended for minimum of one year; must complete 8-hour training course for blasters given by KDMM**



**and pass blasters' examination before certificate will be reinstated); Jones (probation of shotfirer and drill operator's certificate and underground mine foreman's certificate, each for one year); Moore (probation of shotfirer and drill operator's certificate and assistant underground mine foreman's certificate, each for one year)**



**4. KDMM v. Jackie Holbrook. Timothy Hookins & Harold Swiney Docket No. 03-MSRC-004 filed: 4/15/03 subject: section foreman and mine superintendent required mining crew to move section power center while it was energized, despite miners' complaints that procedure was unsafe; status: MSRC found probable cause on 4/23/03; MSRC approved KDMM's settlement with Holbrook regarding both this case and 03-MSRC-005 (revocation of his underground mine foreman's certificate for 2 years); MSRC granted default judgment against Swiney (electrical certificate and underground mine foreman's certificate each suspended for one month, followed by an 11-month period of probation); trial against Hopkins scheduled for 9/11/03**



**5. KDMM v. Jackie Holbrook Docket No. 03-MSRC-005 filed: 4/16/03 subject: section foreman ordered scoop operator to clean up rock fall under unsupported roof in newly-mined break, and when scoop operator refused, worked under the unsupported roof himself; also ordered roof bolting machine operators to bolt a heading inby the unsupported crosscut, in violation of roof control plan; foreman also drove scoop through an unsupported open crosscut to clean up loose coal; status: MSRC approved KDMM's settlement agreement with Holbrook regarding both this case and 03-MSRC-004 (revocation of his foreman's certificate for 2 years)**



14. KDMM v. Jackie Holbrook Docket No. 03-MSRC-014 filed: 9/18/03 subject: Holbrook's underground mine foreman's certificate was revoked for 2 years, effective 7/3/03, pursuant to the settlement of two prior disciplinary cases brought against him by KDMM (see Nos. 03-MSRC-004 and 005); although his foreman's certificate had been revoked, Holbrook held himself out as a certified mine foreman to a new employer, and was performing preshift examinations for hazardous conditions at an underground coal mine when discovered by a KDMM inspector; because of Holbrook's intentional violation of Kentucky law - which requires that the preshift examiner be a certified foreman -



and his flagrant disregard of MSRC's order revoking his foreman's certificate, KDMM asked that Holbrook's foreman's certificate be permanently revoked; status: KDMM and Holbrook entered into settlement agreement on 11/13/03, which was approved by the Commission on 12/11/03 (Holbrook's **underground mine foreman's certificate permanently revoked** & his underground miner's certificate placed on probation for 2 years)





**20. KDMM v. Ray Lamb Docket No. 03-MSRC-020 filed: 12/1/03 subject: four federal mine inspectors made "saturation" inspection regarding ventilation and smoking articles at underground mine; MSHA inspectors issued citations for the failure to hang ventilation curtains in several entries (there was no detectable air movement at the mine face) and for the failure to comply with the approved smoking search program (cigarettes and a lighter were found lying in loose coal on the mine floor next to the continuous miner where the 2nd shift section foreman, Lamb, was located); status: MSRC found probable cause on 12/11/03; settlement agreement reached (Lamb's underground mine foreman's certificate placed on probation for 18 months + he must take 8-hour safety course from KDMM within 30 days of settlement)**



**2. KDMM v. Frank G. Head. Gary  
Dempsev. Mark Engler. Jason Owen.  
Timothy Shelton & Nicholas Day**  
**Docket No. 03-MSRC-002 filed: 2/3/03**  
**subject: company installing waterline  
in return aircourse of underground  
mine;**



**The foreman failed to conduct preshift examination for hazardous conditions in work area, and crew then worked under unsupported roof in a crosscut; status: settlements agreements with all 6 Respondents approved by Commission: Head (revocation of underground mine foreman's certificate, surface mine foreman's certificate, and assistant underground mine foreman's certificate, each for one year);**



**Dempsey (probation of underground mine foreman's certificate and assistant underground mine foreman's certificate, each for one year); Engler (probation of underground mine foreman's certificate for one year); Owen, Shelton & Day (probation of their coal miner's certificate for 10 days each); NOTE: prior to KDMM filing this action, Head was discharged by coal company; the other 5 miners were each suspended for 15 days without pay.**



**18. KDMM v. Douglas Cowan Docket No. 03-MSRC-018  
filed: 11/24/03 subject: Cowan, a mine foreman/pre-shift  
examiner, was cited by an MSHA inspector for "pre-dating"  
a pre-shift examination for hazardous conditions at  
underground coal mine (Count 1); as a result, he was  
discharged by the coal company; approximately 6 weeks  
later, at another underground coal mine, an MSHA  
inspector cited Cowan for failing to conduct a pre-shift  
examination (Count 2); status: settlement agreement  
reached on 12/5/03 and approved by Commission on  
12/11/03 (Cowan's underground mine foreman's certificate  
and his underground mining instructor's certificate each  
suspended for 6 months, followed by one year period of  
probation; Cowan must take 8-hour safety course from  
KDMM within 30 days of settlement)**



**What is a pre – shift  
examination?**



**The examination of a mine or any portion thereof, where miners are scheduled to work or travel, which shall be conducted not more than 3 hours before any on-coming shift.**



**Name the three (3) categories of inspection to be performed by a fireboss or pre-shift examiner?**





**The fireboss must examine for hazardous conditions, test for methane and oxygen deficiency, and determine if the air is moving in its proper direction.**



**Where shall firebosses conduct tests for methane?**



**Tests are to be made at least 12 inches from the roof, face, ribs and floor, at working places, intake air courses (includes belt entries), and at areas where equipment is being installed or removed.**



**What is the purpose of the pre-shift examination?**



**The purpose of the pre-shift inspection is to accurately assess the conditions of the mine and take the necessary action to correct any un-safe and hazardous conditions found.**



**When must the pre – shift  
examination be conducted?**



**A certified foreman or fireboss is required to carefully examine the mine workings within three (3) hours before each shift enters the mine**



**What areas are the  
fireboss / pre-shift  
examiner required to  
examine?**





# **The fireboss / pre-shift examiner is required to examine the following:**

- **Every working place**
- **All places adjacent to live workings**
- **Every roadway where persons are required to work or travel**
- **All abandoned panels on the intake**
- **Belt conveyors used to transport persons and entries where these conveyors are located**



# **The fireboss / pre-shift examiner is required to examine the following:**

- Working sections and areas where mining equipment is being installed or removed, where anyone is scheduled to work**
- Seals along intake air courses where air is used to ventilate working sections**
- Entries and rooms developed more than 20 feet deep (off intake airways) without a crosscut connection, or more than two (2) crosscuts deep without permanent ventilation controls**



# **The fireboss / pre-shift examiner is required to examine the following:**

- **Transformer stations**
- **Battery charging stations**
- **Substations**
- **Rectifiers**
- **Water pumps (permanent)**
- **At high spots along intake air courses where methane is likely to accumulate, if equipment will be operated in area during shift**



**What other areas is the fireboss required to examine?**



**The fireboss / pre-shift examiner is also required to examine:**

- **Every set of seals on the intake**
- **All roof falls near active workings on the intake and on the working sections**



**True or False: Before proceeding with the examination, the fireboss shall see that the air current is traveling its proper course. In making the examination he shall use approved gas detection devices.**



**Answer: True**



**After his examination, what shall the fireboss leave at, or as close as possible to the face of every place he examined?**





**He shall leave the date and time of his examination and his initials as evidence that he performed his duty.**



**What must be done by the fireboss if he finds a dangerous or hazardous condition?**



**If he can correct the condition, he must do so. If he is unable to correct the condition, he must barricade and danger off the area or the equipment, preventing persons from entering the dangerous area or operating the unsafe equipment.**



**Who is allowed to pass through a danger signal or danger sign that has been installed by a fireboss or mine examiner?**



**No person shall pass or remove a danger signal or danger sign until the dangerous condition has been corrected, except the fire boss or the mine foreman and those under their direct supervision who will be correcting the dangerous condition.**



**True or False: The mine foreman and the fire boss shall provide a permanent station with a proper danger signal, designated by suitable letters and colors, at or near the main entrance to the mine**



**Answer: True**



**True or False: When a fire boss station is located inside the mine, it is not necessary for the fireboss to enter and sign a report in the record book located in the mine office on the surface.**





**Answer: False, the fire boss shall enter and sign a report both in the record book kept there and in a record book in the mine office on the surface.**



# Let's review some possible hazardous conditions that may be observed by the fire boss or pre-shift examiner:

- **The fan is not operating**
- **The fan pressure gage shows a large increase in pressure**
- **The air is not following its proper course**
- **The oxygen content is below 19.5%**
- **The air reading at the last open crosscut is below 9000 cu. ft./min.**



## **Continued: Hazardous Conditions**

- **The air reading on the intake side of the pillar line is below 9000 cu. ft./min.**
- **Brattices/permanent stoppings have been dislodged just outby the belt feeder**
- **Check curtains on section have been knocked down**
- **Face curtains are not installed**



# Continued: Hazardous Conditions

- **Methane content at face is 1% or more**
- **Dangerous/loose roof is observed in the travelway**
- **Roof fall in the travelway**
- **Cribs or timbers have been dislodged in the travelway and have not been re-installed**
- **Hillseams and/or cracks in the roof at the section on both sides of an entry running parallel to the entry**
- **A large kettlebottom is located between the bolts in the L.O.C. of the belt heading**



# Continued: Hazardous Conditions

- **Test holes on the section indicate cracks in the roof at or near the anchorage zone of the roof bolts being installed**
- **The heads of roof bolts have been sheared off by equipment without re-installation or additional support**
- **Danger signs, tags or reflectors, are not installed at the last row of permanent support**
- **Ribs sloughing - indicating coal blocks are taking weight**
- **Bottom is heaving**



# Continued: Hazardous Conditions

- **No fire extinguisher at power center**
- **No rockdust at power center**
- **Inadequate first aid supplies or no first aid kit at power center**
- **No insulation mats at power center cable connections**
- **Cables and receptacles not properly identified at power center**
- **Ground wire between power center and cable trailer damaged or missing**
- **Communication system between section and surface inoperative**
- **An escapeway map is not located at the power center**



# Continued: Hazardous Conditions

- **A lock and tag-out system, necessary for equipment repair, is not in place**
- **Rock dust has not been applied to within 40 feet of the faces**
- **Excessive amounts of loose coal and dust are located on the ribs and roadways**
- **Oil cans, roof bolts and other debris are located by the ribs in the shuttle car roadways**
- **Proper transportation is not available at the section for transporting the injured to the surface**
- **The guard is missing at the chain drive on the belt feeder**



**When hazardous conditions are found by the fire boss or pre-shift examiner, he must take action. He must correct the condition or barricade and danger it off to prevent entry. He must then report his action in the pre-shift book and communicate his findings/actions to the on-coming foreman and other appropriate supervisors.**





**The pre-shift examiner / fireboss must record his findings in the record book for that purpose.  
What must his findings include?**



**All hazardous conditions found and their locations, and the actions taken by the pre-shift examiner / fireboss regarding the hazardous conditions, and the results and locations of air and methane measurements.**



**When and by whom must the record be made?**



**The record of the pre-shift examination shall be made on the surface before any persons (other than certified persons making examinations) enter the mine.**

**The record shall be made by the person who made the exam (KRS 352.290), or by a person designated by the operator (75.363)**



**If the record is made by the designated person, the examiner shall verify by initials and date by or at the end of the shift which the exam was made (75.363)**



**All pre-shift and corrective action records shall be countersigned by the mine foreman by the end of the day (KRS 352.350), or equivalent official by the end of the mine foreman's or equivalent official's next regularly scheduled work shift (75.363).**



# Substance Abuse



# **352.210 Conduct in mine -- Intoxication, alcoholic beverage or controlled substance prohibited.**

**No person shall enter or be on any mine property while intoxicated or under the influence of alcohol or a controlled substance. No alcoholic beverage or controlled substance shall be permitted in or about any mine; provided, however, this shall not apply to private vehicles driven to and from the mine.**

**The following program was developed by the Department of Labor and may be similar to drug abuse programs used at some mines.**





# Employee Education

*Working Partners* for an  
Alcohol- and Drug-Free Workplace



Provided by the Office of the Assistant Secretary for Policy  
U.S. Department of Labor



# Employee Education Outline

- Objectives of training
- Overview of Drug-Free Workplace Policy
- Impact of substance abuse in the workplace
- Ways that people use alcohol and other drugs
- Understanding addiction
- Signs and symptoms of substance abuse
- Family and coworker impact
- Assistance
- Confidentiality
- Specific drugs of abuse



# Objectives of Training

**At the end of the training, employees should be familiar with the Drug-Free Workplace Policy and aware of the dangers of alcohol and drug abuse. Employees should understand:**

- **The requirements of the Drug-Free Workplace Policy**
- **The prevalence of alcohol and drug abuse and its impact on the workplace**
- **How to recognize the link between poor performance and alcohol and/or drug abuse**
- **The progression of the disease of alcohol and drug addiction**
- **What types of assistance may be available**



# **Overview of Drug-Free Workplace Policy**

**The Drug-Free Workplace Policy accomplishes two major things:**

- Sends a clear message that alcohol and drug use in the workplace is prohibited**
- Encourages employees who have problems with alcohol and other drugs to voluntarily seek help**



# **The Drug-Free Workplace Policy exists to:**

- **Protect the health and safety of all employees, customers and the public**
- **Safeguard employer assets from theft and destruction**
- **Protect trade secrets**
- **Maintain product quality and company integrity and reputation**
- **Comply with the Drug-Free Workplace Act of 1988 or any other applicable laws**



# **The Drug-Free Workplace Policy answers the following questions:**

- **What is the purpose of the policy and program?**
- **Who is covered by the policy?**
- **When does the policy apply?**
- **What behavior is prohibited?**
- **Are employees required to notify supervisors of drug-related convictions?**
- **Does the policy include searches?**



- **Does the program include drug testing?**
- **What are the consequences for violating the policy?**
- **Are there Return-to-Work Agreements?**
- **What type of assistance is available to employees needing help?**
- **How is employee confidentiality protected?**
- **Who is responsible for enforcing the policy?**
- **How is the policy communicated to employees?**



# Impact of Substance Abuse in the Workplace

- Employee health
- Productivity
- Decision making
- Safety
- Employee morale
- Security
- Organizational image and community relations





# Ways that People Use Alcohol and Other Drugs

Use:

- Experimentation
- Social/Recreational
- As a stress reliever



**Abuse:** Using a substance to modify or control mood or state of mind in a manner that is illegal or harmful to oneself or others. Potential consequences of abuse include:

- **Accidents or injuries**
- **Blackouts**
- **Legal problems**
- **Poor job performance**
- **Family problems**
- **Sexual behavior that increases the risk of HIV infection**



# **Addiction:**

**The irresistible compulsion to use alcohol and other drugs despite adverse consequences. It is characterized by repeated failures to control use, increased tolerance and increased disruption in the family.**



# Understanding Addiction

**For one in ten people, abuse leads to addiction. Addiction to alcohol and other drugs is:**

- **Chronic**
- **Progressive**
- **Primary**
- **Terminal**
- **Characterized by denial**



## **Risk of addiction:**

- **Addiction is a family disease**
- **Prior abuse of alcohol and other drugs**
- **Other contributing factors**



# Signs and Symptoms of Substance Abuse

**Abuse of alcohol and other drugs affects people:**

- **Emotionally**
- **Behaviorally**
- **Physically**



# Emotional effects of substance abuse:

- **Aggression**
- **Burnout**
- **Anxiety**
- **Depression**
- **Paranoia**
- **Denial**



## **Behavioral effects of substance abuse:**

- **Slow reaction time**
- **Impaired coordination**
- **Slowed or slurred speech**
- **Irritability**
- **Excessive talking**
- **Inability to sit still**
- **Limited attention span**
- **Poor motivation or lack of energy**





# Physical effects of substance abuse:

- **Weight loss**
- **Sweating**
- **Chills**
- **Smell of alcohol**



# Family and Coworker Impact

## Enabling:

**Action that someone takes to protect the person with the problem from the consequences of his or her actions.**

**Unfortunately, enabling actually helps the person to NOT deal with his or her problem.**



## **Examples of enabling:**

- **Covering Up**
- **Rationalizing**
- **Withdrawing/Avoiding**
- **Blaming**
- **Controlling**
- **Threatening**



## **Examples of traps family members and coworkers may fall into:**

- **Sympathy**
- **Excuses**
- **Apology**
- **Diversions**
- **Innocence**
- **Anger**
- **Pity**
- **Tears**



# Assistance

## Things to remember:

- **Difficulty performing on the job can sometimes be caused by unrecognized personal problems - including addiction to alcohol and other drugs**
- **Help is available**
- **Although a supervisor may suspect that an employee's performance is poor because of underlying personal problems, it is up to the employee to decide whether or not that is the case**



- **It is an employee's responsibility to decide whether or not to seek help**
- **Addiction is treatable and reversible**
- **An employee's decision to seek help is a private one and will not be made public**



## **If Employee Assistance Program (EAP) services are available:**

- **An EAP can help employees decide what to do if they have a problem with alcohol or other drugs**
- **An EAP also can help an employee decide what to do if someone in his/her family or workgroup has a problem**
- **Conversations with an EAP are confidential**



## **If EAP services are not available, help may be available from:**

- **Community hotlines**
- **Self-help groups such as Alcoholics Anonymous, Narcotics Anonymous, Al-Anon, etc.**
- **Community mental health centers**
- **Private therapists or counselors**
- **Addiction treatment centers**





# Confidentiality

- **Problems will not be made public**
- **Conversations with an EAP professional - or other referral agent - are private and will be protected**
- **All information related to performance issues will be maintained in his/her personnel file**
- **Information about referral to treatment, however, will be kept separately**



- **Information about treatment for addiction or mental illness is not a matter of public record and cannot be shared without a signed release from the employee**
- **If an employee chooses to tell coworkers about his/her private concerns, that is his/her decision**
- **When an employee tells his/her supervisor something in confidence, supervisors are obligated to protect that disclosure**



## **If EAP services are available, employees are also assured that:**

- **EAP records are separate from personnel records and can be accessed only with a signed release from the employee**
- **EAP professionals are bound by a code of ethics to protect the confidentiality of the employees and family members that they serve**
- **There are clear limits on when and what information an EAP professional can share and with whom**



## **However, there are some limits on confidentiality that may require:**

- **Disclosure of child abuse, elder abuse and serious threats of homicide or suicide as dictated by state law**
- **Reporting participation in an EAP to the referring supervisor**
- **Reporting the results of assessment and evaluation following a positive drug test**
- **Verifying medical information to authorize release time or satisfy fitness-for-duty concerns as specified in company policy**
- **Revealing medical information to the insurance company in order to qualify for coverage under a benefits plan**



# Specific Drugs of Abuse

- **Alcohol**
- **Marijuana**
- **Inhalants**
- **Cocaine**
- **Stimulants Depressants**
- **Hallucinogens**
- **Narcotics**
- **Designer Drugs**



**Oral Exam**  
**on**  
**Substance Abuse**



**Is alcohol and drug use against  
the law in the workplace?**



**Is alcohol and drug use against  
the law in the workplace?**

**Answer: Yes**





**Should employees who have problems with alcohol and other drugs be encouraged to voluntarily seek help?**



**Should employees who have problems with alcohol and other drugs be encouraged to voluntarily seek help?**

**Answer: Yes**



**What is the purpose of a  
drug free workplace policy?**



**What is the purpose of a drug free workplace policy?**

**Answer: To protect the health and safety of all employees**



**Name some things that are impacted by drug use in the workplace?**



**Name some things that are impacted by drug use in the workplace?**

- **Employee Health and Productivity**
- **Decision Making and Safety**
- **Employee Morale and Security**
- **Organizational image and Community relations**



**Name some ways that people use alcohol and other drugs?**



**Name some ways that people use alcohol and other drugs?**

**Answer: Experimentation,  
Social/Recreational, and as a  
Stress Reliever**





**Abuse is using a substance to modify or control mood or state of mind in a manner that is illegal or harmful to oneself or others.**



**Name some potential  
consequences of drug  
abuse?**



**Name some potential consequences of drug abuse?**

**Answer: Accidents / Injuries, Blackouts, Legal Problems, Poor Job Performance, Family Problems and Sexual Behavior that increases the risk of HIV infection**



**Define addiction?**



**Addiction is the irresistible compulsion to use alcohol and other drugs despite adverse consequences.**



**How does the abuse of alcohol and other drugs affect people?**



# How does the abuse of alcohol and other drugs affects people?

- **Emotionally**
- **Behaviorally**
- **Physically**



**What are some emotional effects of substance abuse?**





# What are some emotional effects of substance abuse?

- **Aggression**
- **Burnout**
- **Anxiety**
- **Depression**
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- **Denial**



**What are some behavioral effects of substance abuse?**



# Behavioral effects of substance abuse:

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**What are some physical effects of substance abuse?**



# Physical effects of substance abuse:

- **Weight loss**
- **Sweating**
- **Chills**
- **Smell of alcohol**



**Enabling is defined as an action that someone takes to protect the person with the problem from the consequences of his or her actions. Unfortunately, enabling actually helps the person to NOT deal with his or her problem.**



**What are some examples of enabling?**



# What are some examples of enabling?

- **Covering Up**
- **Rationalizing**
- **Withdrawing / Avoiding**
- **Blaming**
- **Controlling**
- **Threatening**





# **In Summary:**

- **Poor job performance can sometimes be caused by unrecognized personal problems – including addiction to alcohol and other drugs**
- **Help is available**
- **It is the employee's responsibility to decide whether or not to seek help**
- **The employee's decision to seek help should remain private**
- **When an employee shares information in confidence with a supervisor, supervisors are obligated to protect that disclosure**



## **However, some limits on confidentiality may require:**

- **Disclosure of child abuse, elder abuse, and serious threats of homicide or suicide as dictated by state law**
- **Reporting the results of a positive drug test**
- **Verifying medical information as required by company policy**
- **Revealing medical information to the insurance company in order to qualify for coverage**



# Help is available from:

- **Community hotlines**
- **Self-help groups such as Alcoholics Anonymous and Narcotics Anonymous**
- **Community mental health centers**
- **Private therapists or counselors**
- **Addiction treatment centers**
- **Company sponsored programs (if available)**



# The following are some drugs of abuse?

- Alcohol
- Marijuana
- Inhalants
- Cocaine
- Stimulants
- Depressants
- Hallucinogens
- Narcotics
- Designer Drugs



# End of Unit 1

