



# INTRATRAN<sup>®</sup> SAFETY:

## MINING

### **Mine Safety (MSHA)**

There are few places where safety is more important or more hazards exist than a busy mining operation. We have partnered with Vivid Learning Systems to offer this series of modules. Vivid Learning was first to market with quality, effective online training specific to MSHA regulations. The MSHA library is completely scalable across your entire enterprise, can be customized to meet your specific needs, and can be deployed quickly. We give you the flexibility to train employees anywhere, anytime, with fully automated, centralized administration and compliance documentation

### **MSHA Part 46 Miner Refresher Training**

#### **Lesson 1 - Emergency Procedures**

**Requirement**

- 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING

**References:**

- Part 46 - Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines. Sections 46.1 – 46.12

**Description/**

**Goal:**

Injuries, fire, and equipment damage are typical emergencies that may occur at a mine. Other emergencies might include earthquakes, tornadoes, explosions, bomb threats, hazardous spills, and acts of violence. Knowing the actions to take could be the difference between life and death. This lesson describes emergency procedures mines have in place for handling emergencies. Students will learn who to contact, how warning signals notify employees of emergencies, how to evacuate, and where to report.

**Objectives:**

- Identify medical emergency procedures that may take place at a mine.
- Identify the typical fire warning signals, fire fighting equipment, and how to use a fire extinguisher.
- Recognize the emergency evacuation plans and reporting procedures at a typical mine site.
- Identify how to respond to weather-related and natural disasters.
- Identify how to respond to other types of emergencies such as explosions, bomb threats, hazardous spills, and acts of violence.

#### **Lesson 2 - First Aid**

**Requirement**

**References:**

- 30 CFR Subchapter K Metal and Nonmetal Mine Safety and Health
- Part 56 Safety and Health Standards – Surface Metal and Nonmetal Mines
- Subpart N – Personal Protection
- Section 56.15001
- Subpart Q – Safety Programs
- Section 56.18010, 56.18012, 56.18013, 56.18014
- MSHA's Program Policy Manual

**Description/**

**Goal:**

Each mine employee will know how to initially respond to an accident or injury situation, become aware of first aid guidelines and "good practices," and be able to properly treat injuries and respond to emergencies. This module trains miners on the hazards of chemicals in their work area, information on chemical labels and MSDS, how to access this information when needed, and how miners can protect themselves from harmful exposure.

**Objectives:**

- Identify the correct actions to take during an initial response to an accident or first aid situation.
- Identify the correct actions to take when providing first aid in situations involving bleeding.
- Identify the symptoms of shock and the correct actions to take when providing first aid in situations involving shock.
- Identify the correct actions to take when providing first aid in situations involving burns.
- Identify the correct actions to take when providing first aid in electrical accident situations.
- Identify the symptoms associated with a head injury and the correct actions to take when providing first aid in situations involving potential head injuries.



- Identify when to suspect a spinal injury and the correct actions to take when providing first aid in situations involving potential spinal injuries.
- Identify the correct actions to take when providing first aid in situations involving fractures.
- Identify the signs and symptoms of poisonings and the correct actions to take when providing first aid in poisoning accidents.
- Identify the signs and symptoms associated with environmental emergencies including snakebites and heat and cold stress and the correct actions to take when providing first aid in these situations.

### **Lesson 3 - Hazard Communication**

**Requirement**

- 30 CFR Part 47 Sections 47.2, 47.31-.32

**References:**

**Description/**

To train miners on the hazards of chemicals in their work area, information on chemical labels and MSDS, how to access this information when needed, and how miners can protect themselves from harmful exposure.

**Goal:**

**Objectives:**

- Identify the physical and health hazards of chemical exposure.
- Identify the type of information provided on a chemical container label.
- Identify the type of information provided on an MSDS and how to access the information when needed.
- Identify how to determine if a chemical is hazardous and the importance of a written HazCom Program.
- Identify what measures to take to protect against harmful exposures to chemicals and emergency procedures to take in the event of a chemical spill.

### **Lesson 4 - Hazard Recognition and Avoidance**

**Requirement**

- 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING

**References:**

- 30 CFR 46.1 Scope, 46.2 Definitions, 46.3 Training Plans, 46.4 Training Plan Implementation, 46.5 New Miner Training, 46.6 Newly Hired Experienced Miner Training, 46.7 New Task Training, 46.8 Annual Refresher Training, 46.9 Records of Training, 46.10 Compensation for Training, 46.11 Site-Specific Hazard Awareness Training, 46.12 Responsibility for Independent Contractor Training

**Description/**

**Goal:**

Miners work in an environment where there are both mechanical and physical hazards such as mobile equipment, heavy machinery, electricity, unsafe ground conditions, loud noise, and heavy dust. To work safely at a mine site, miners must learn to recognize these hazards and take appropriate steps to avoid the risks and to promptly report hazards. Each mine employee will know how to identify some of the more common hazards found at mine sites and the protective measures used to minimize the risk.

**Objectives:**

- Identify the three primary methods of controlling hazards.
- Identify the hazards and protective measures involving mobile equipment.
- Identify the potential mechanical hazards at mine sites and how to minimize the risk.
- Identify the hazards involving electricity and how to minimize the risk.
- Identify hazards that may result in "struck by" incidents and how to minimize the risk.
- Identify unsafe ground conditions and how to minimize the risk.
- Identify slip, trip, and fall hazards and how to minimize the risk.
- Identify several environmental hazards and how to minimize the risk.

### **Lesson 5 - Respiratory Protection**

**Requirement**

- 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING

**References:**

- Part 46 - Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines. Sections 46.1 – 46.12
- 30 CFR Subchapter K Metal and Nonmetal Mine Safety and Health
- Part 56 Safety and Health Standards – Surface Metal and Nonmetal Mines
- Subpart D – Air Quality and Physical Agents – Air Quality
- Section 56.5001, 56.5002, 56.5005 and 56.5006
- American National Standards Practices for Respiratory Protection ANSI Z88.2-1969

**Description/**

**Goal:**

The goal of this lesson is to ensure miners are qualified and properly trained in the use and maintenance of respirators.

**Objectives:**

- Recognize the respiratory hazards associated with surface mining dust.
- Recognize the basic respirator user qualifications and training requirements.
- Identify how to select the right respirator for the task.
- Recognize how to use and care for respirators.
- Recognize what to do in emergency situations.

## Lesson 6 - Statutory Rights

<b>Requirement</b>	<ul style="list-style-type: none"><li>• MSHA Part 46 Training Regulations</li></ul>
<b>References:</b>	<ul style="list-style-type: none"><li>• Title 30 CFR</li></ul>
<b>Description/ Goal:</b>	When congress enacted the Federal Mine Safety and Health Act of 1977, certain statutory rights were given to miners and their representatives. This lesson provides an awareness of the rights that directly affect miners and their representatives.
<b>Objectives:</b>	<ul style="list-style-type: none"><li>• Identify their rights and the rights of their representatives under the Federal Mine Safety and Health Act of 1977.</li></ul>

## Additional Lessons – Accident Prevention

Courses will be assigned based on relevant job task to obtain your full MSHA certification

## MSHA Part 46 New Miner Training

MSHA Part 46 regulations require that New Miners complete a minimum of 24 hours of training within their first 90 days of employment, 4 hours of which must be completed prior to beginning work at the mine. Vivid Learning Systems' MSHA Part 46 New Miner Training offers over 4 hours of training that was created to meet the training subject requirements in 30 CFR 46.5, plus an additional 20 hours of task specific [supplemental](#) training. This is everything you need to get you on the job safely whether you are a surface miner or surface miner contractor.

### Lesson 1: Line of Authority

<b>Description/ Goal:</b>	This lesson is included in the New Miner Training program in the form of a worksheet to be completed by the competent person/instructor and reviewed by the new miner in order to become familiar with the specific line of authority at the mine site
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### Lesson 2: Introduction

<b>Description/ Goal:</b>	This lesson is presented in the form of a checklist to be completed by the competent person/instructor while presenting the new miner with an introduction to the mine site, its layout and its hazards.
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### Lesson 3: Emergency Procedures

<b>Requirement</b>	<ul style="list-style-type: none"><li>• 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING</li></ul>
<b>References:</b>	<ul style="list-style-type: none"><li>• Part 46 - Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines. Sections 46.1 – 46.12</li></ul>
<b>Description/ Goal:</b>	Injuries, fire, and equipment damage are typical emergencies that may occur at a mine. Other emergencies might include earthquakes, tornadoes, explosions, bomb threats, hazardous spills, and acts of violence. Knowing the actions to take could be the difference between life and death. This lesson describes emergency procedures mines have in place for handling emergencies. Students will learn who to contact, how warning signals notify employees of emergencies, how to evacuate, and where to report.
<b>Objectives:</b>	<ul style="list-style-type: none"><li>• Identify medical emergency procedures that may take place at a mine.</li><li>• Identify the typical fire warning signals, fire fighting equipment, and how to use a fire extinguisher.</li><li>• Recognize the emergency evacuation plans and reporting procedures at a typical mine site.</li><li>• Identify how to respond to weather-related and natural disasters.</li><li>• Identify how to respond to other types of emergencies such as explosions, bomb threats, hazardous spills, and acts of violence.</li></ul>

### Lesson 4: Statutory Rights

<b>Requirement</b>	<ul style="list-style-type: none"><li>• MSHA Part 46 Training Regulations</li></ul>
<b>References:</b>	<ul style="list-style-type: none"><li>• Title 30 CFR</li></ul>
<b>Description/ Goal:</b>	When congress enacted the Federal Mine Safety and Health Act of 1977, certain statutory rights were given to miners and their representatives. This lesson provides an awareness of the rights that directly affect miners their representatives. The goal of this lesson is to provide miners with an awareness of their rights and the rights of their representatives under the Federal Mine Safety and Health Act of 1977.
<b>Objectives:</b>	<ul style="list-style-type: none"><li>• Identify their rights and the rights of their representatives under the Federal Mine Safety and Health Act of 1977.</li></ul>

### Lesson 5: Hazard Recognition and Avoidance

<b>Requirement</b>	<ul style="list-style-type: none"><li>• 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING</li></ul>
<b>References:</b>	<ul style="list-style-type: none"><li>• 30 CFR 46.1 Scope, 46.2 Definitions, 46.3 Training Plans, 46.4 Training Plan Implementation, 46.5 New Miner Training, 46.6 Newly Hired Experienced Miner Training, 46.7 New Task Training, 46.8 Annual Refresher Training, 46.9 Records of Training, 46.10 Compensation for Training, 46.11 Site-Specific Hazard Awareness Training, 46.12 Responsibility for Independent Contractor Training</li></ul>
<b>Description/ Goal:</b>	Miners work in an environment where there are both mechanical and physical hazards such as mobile equipment, heavy machinery, electricity, unsafe ground conditions, loud noise, and heavy dust. To work safely at a mine site, miners must learn to

- Objectives:**
- recognize these hazards and take appropriate steps to avoid the risks.
  - Identify the three primary methods of controlling hazards.
  - Identify the hazards and protective measures involving mobile equipment.
  - Identify the potential mechanical hazards at mine sites and how to minimize the risk.
  - Identify the hazards involving electricity and how to minimize the risk.
  - Identify hazards that may result in “struck by” incidents and how to minimize the risk.
  - Identify unsafe ground conditions and how to minimize the risk.
  - Identify slip, trip, and fall hazards and how to minimize the risk.
  - Identify several environmental hazards and how to minimize the risk.

## **Lesson 6: Reporting Hazards**

- Requirement**
- 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING
- References:**
- 30 CFR 46.1 Scope, 46.2 Definitions, 46.3 Training Plans, 46.4 Training Plan Implementation, 46.5 New Miner Training, 46.6 Newly Hired Experienced Miner Training, 46.7 New Task Training, 46.8 Annual Refresher Training, 46.9 Records of Training, 46.10 Compensation for Training, 46.11 Site-Specific Hazard Awareness Training, 46.12 Responsibility for Independent Contractor Training
- Description/Goal:**
- Miners work in an environment where there are many hazards such as mobile equipment, heavy machinery, electricity, unsafe ground conditions, loud noise, and heavy dust. To work safely at a mine site, miners must learn to recognize these hazards and take appropriate steps to avoid the risks and to promptly report hazards. In this lesson miners will learn the importance of promptly reporting hazards.
- Objectives:**
- Recognize the importance of promptly reporting hazards.
  - Identify the standard operating procedures to control contamination during cooling.
  - Identify the standard operating procedures to control contamination during service.

## **Lesson 7: Health and Safety Aspects of Assigned Tasks**

- Description/Goal:**
- This lesson uses a checklist as a guideline to ensure that the health and safety aspects of a new task are adequately addressed for the miner assigned to the task.

## **Lesson 8 - Respiratory Protection**

- Requirement**
- 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING
- References:**
- Part 46 - Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines. Sections 46.1 – 46.12
  - 30 CFR Subchapter K Metal and Nonmetal Mine Safety and Health
  - Part 56 Safety and Health Standards – Surface Metal and Nonmetal Mines
  - Subpart D – Air Quality and Physical Agents – Air Quality Section 56.5001, 56.5002, 56.5005 and 56.5006
  - American National Standards Practices for Respiratory Protection ANSI Z88.2-1969
- Description/Goal:**
- This lesson discusses why a miner may need to wear a respirator, how to select the right respirator and how to wear it properly
- Objectives:**
- Recognize the respiratory hazards associated with surface mining dust.
  - Recognize the basic respirator user qualifications and training requirements.
  - Identify how to select the right respirator for the task.
  - Recognize how to use and care for respirators.

## **Lesson 9: First Aid**

- Requirement**
- 30 CFR Subchapter K Metal and Nonmetal Mine Safety and Health
- References:**
- Part 56 Safety and Health Standards – Surface Metal and Nonmetal Mines
  - Subpart N – Personal Protection
  - Section 56.15001
  - Subpart Q – Safety Programs
  - Section 56.18010, 56.18012, 56.18013, 56.18014
  - MSHA's Program Policy Manual
- Description/Goal:**
- In this lesson each miner will learn how to initially respond to an accident or injury situation, become aware of first aid guidelines and "good practices"
- Objectives:**
- Identify the correct actions to take during an initial response to an accident or first aid situation.
  - Identify situations involving bleeding.
  - Identify the symptoms of shock.
  - Identify situations involving burns.
  - Identify situations of electrical shock.

- Identify the symptoms associated with a head injury.
- Identify situations involving fractures.
- Identify potential poisoning accidents.
- Identify the signs and symptoms associated with environmental emergencies including snakebites and heat and cold stress.

### **Additional Lessons: Supplemental Task Training**

Courses will be assigned based on relevant job tasks in order to obtain your full MSHA certification.

## **MSHA Part 48 Surface Miner Refresher Training**

### **Lesson 1 - Escape, Evacuations and Emergencies**

**Requirement**

- MSHA 30 CFR, SUBCHAPTER H -- EDUCATION AND TRAINING, Part 48 Subpart B--Training and Retraining of Miners Working at Surface Mines and Surface Areas of Underground Mines

**References:**

**Description/**

**Goal:**

Injuries, fire, and equipment damage are typical emergencies that may occur at a mine. Other emergencies might include earthquakes, tornadoes, explosions, bomb threats, hazardous spills, and acts of violence. Knowing the actions to take could be the difference between life and death. This lesson covers emergency procedures mines have in place for handling emergencies. Surface Miners and Surface Mining Contractors will learn who to contact, how warning signals notify employees of emergencies, how to evacuate, and where to report.

**Objectives:**

- Identify medical emergency procedures that may take place at a mine.
- Identify the typical fire warning signals, fire fighting equipment, and how to use a fire extinguisher.
- Recognize the emergency evacuation plans and reporting procedures at a typical mine site.
- Identify how to respond to weather-related and natural disasters.
- Identify how to respond to other types of emergencies such as explosions, bomb threats, hazardous spills, and acts of violence.

### **Lesson 2 - First Aid**

**Requirement**

**References:**

- MSHA 30 CFR, SUBCHAPTER H -- EDUCATION AND TRAINING
- Part 48 Subpart B--Training and Retraining of Miners Working at Surface Mines and Surface Areas of Underground Mines
- MSHA 30 CFR, SUBCHAPTER K -- METAL AND NONMETAL MINE SAFETY AND HEALTH
- Part 56 Subpart N – Personal Protection, Section 56.15001
- Part 56 Subpart Q – Safety Programs, Sections 56.18010, 56.18012, 56.18013, 56.18014
- MSHA's Program Policy Manual

**Description/**

**Goal:**

In this lesson Surface Miners and Surface Mining Contractors will learn how to initially respond to an accident or injury situation. They will walk away knowing first aid guidelines and good practices in the case of an emergency. Overall, they will be able to properly treat injuries and respond to emergencies.

**Objectives:**

- Identify the correct actions to take during an initial response to an accident or first aid situation.
- Identify the correct actions to take when providing first aid in situations involving bleeding.
- Identify the symptoms of shock and the correct actions to take when providing first aid in situations involving shock.
- Identify the correct actions to take when providing first aid in situations involving burns.
- Identify the correct actions to take when providing first aid in electrical accident situations.
- Identify the symptoms associated with a head injury and the correct actions to take when providing first aid in situations involving potential head injuries.
- Identify when to suspect a spinal injury and the correct actions to take when providing first aid in situations involving potential spinal injuries.
- Identify the correct actions to take when providing first aid in situations involving fractures.
- Identify the signs and symptoms of poisonings and the correct actions to take when providing first aid in poisoning accidents.
- Identify the signs and symptoms associated with environmental emergencies including snakebites and heat and cold stress and the correct actions to take when providing first aid in these situations.

### **Lesson 3 - Hazard Communication**

**Requirement**

**References:**

**Description/**

**Goal:**

- MSHA 30 CFR , SUBCHAPTER H -- Part 47, Subpart A, Section 47.2
  - MSHA 30 CFR , SUBCHAPTER H -- Part 47, Subpart D, Sections 47.31-32
- Miners work in an environment where exposure to chemicals poses a range of health and physical hazards. To work safely at a mine site, miners have a right to know, and a responsibility to learn, about the chemical hazards where they work. Mine operators have a responsibility to know, and to inform miners, about the chemical hazards at the mine. This lesson provides an awareness of the hazards of chemicals in the work area and ways to reduce the risk for potential injuries and illnesses related to chemicals.

**Objectives:**

- Identify the physical and health hazards of chemical exposure.
- Identify the type of information provided on a chemical container label.
- Identify the type of information provided on an MSDS and how to access the information when needed.
- Identify how to determine if a chemical is hazardous and the importance of a written HazCom Program.
- Identify what measures to take to protect against harmful exposures to chemicals and emergency procedures to take in the event of a chemical spill.

**Lesson 4 - Primary Prevention****Requirement**

- MSHA 30 CFR, SUBCHAPTER H -- EDUCATION AND TRAINING, Part 48 Subpart B--Training and Retraining of Miners Working at Surface Mines and Surface Areas of Underground Mines

**References:****Description/**

Miners work in an environment where there are both mechanical and physical hazards such as mobile equipment, heavy machinery, electricity, unsafe ground conditions, loud noise, and heavy dust. To work safely at a mine site, miners must learn to recognize these hazards and take appropriate steps to avoid the risks and to promptly report hazards.

**Goal:****Objectives:**

- Identify the three primary methods of controlling hazards.
- Identify the hazards and protective measures involving mobile equipment.
- Identify the potential mechanical hazards at mine sites and how to minimize the risk.
- Identify the hazards involving electricity and how to minimize the risk.
- Identify hazards that may result in "struck by" incidents and how to minimize the risk.
- Identify unsafe ground conditions and how to minimize the risk.
- Identify slip, trip, and fall hazards and how to minimize the risk.
- Identify environmental hazards such as noise, dust, and blasting and how to minimize the risk.
- Recognize the importance of promptly reporting hazards

**Lesson 5 - Statutory Rights****Requirement**

- MSHA Title 30 CFR SUBCHAPTER H -- EDUCATION AND TRAINING, Part 48 Training and Retraining of Miners

**References:**

- Subpart B--Training and Retraining of Miners Working at Surface Mines and Surface Areas of Underground Mines

**Description/**

When congress enacted the Federal Mine Safety and Health Act of 1977, certain statutory rights were given to miners and their representatives. This lesson provides an awareness of the rights that directly affect miners and their representatives.

**Goal:****Objectives:**

Identify their rights and the rights of their representatives under the Federal Mine Safety and Health Act of 1977

**Lesson 6 - Respiratory Protection****Requirement**

- MSHA 30 CFR, SUBCHAPTER H -- EDUCATION AND TRAINING

**References:**

- Part 48 Subpart B--Training and Retraining of Miners Working at Surface Mines and Surface Areas of Underground Mines
- MSHA 30 CFR, SUBCHAPTER K -- METAL AND NONMETAL MINE SAFETY AND HEALTH
- Part 56 Subpart D – Air Quality and Physical Agents
- 29 CFR 1910.134 - Respiratory Protection: Personal Protective Equipment
- American National Standards Practices for Respiratory Protection ANSI Z88.2-1969

**Description/**

Mine employees will be qualified and properly trained in the use and maintenance of respirators after this taking this lesson.

**Goal:****Objectives:**

- Recognize the respiratory hazards associated with surface mining dust.
- Recognize the basic respirator user qualifications and training requirements.
- Identify how to select the right respirator for the task.
- Recognize how to use and care for respirators.
- Recognize what to do in emergency situations.

**Additional Lessons – Accident Prevention**

Courses will be assigned based on relevant job task to obtain your full MSHA certification.

**MSHA Part 48 Surface New Miner Training**

The training plan for this virtual classroom course is approved by MSHA. At completion students will obtain the 5000-23 form to work on a mine site. Contact intRAttrain by Russell Associates for more information about this course package.