



**Pembroke Hopkins Park Construction Outreach Program**

13355 E. 3000 S. Rd., Pembroke Township, IL

Tel : ( 815) 944-8897 Fax : ( 815) 944-5675

**Competencies/Objectives**

**MODULE 75101-03 – INTRODUCTION TO SAFETY (2.5 Hours)**

1. Explain the difference between compliance and best practices.
2. Describe the purpose and function of the Occupational Health and Safety Administration (OSHA).
3. Explain how accident costs affect everyone on a job site.
4. Describe proper materials handling procedures and safeguards.

**MODULE 75102-03 – HAZARD COMMUNICATION (2.5 Hours)**

1. Identify different types of warning labels.
2. Explain how a material safety data sheet (MSDS) is used.
3. Identify and apply the safety information on an MSDS.
4. Demonstrate and explain proper on-site safety and emergency-response procedures.

**MODULE 75103-03 – PERSONAL PROTECTIVE EQUIPMENT (2.5 Hours)**

1. Describe, in general, the personal protective equipment (PPE) needed for working on a construction site.
2. Describe how to properly use and care for personal protective equipment (PPE).
3. Identify and describe the three main types of respirators used in construction.

**MODULE 75104-03 – WORK-ZONE SAFETY (2.5 Hours)**

1. Identify signs, signals, and barricades that will help you perform your job safely.
2. Identify the hazards and safeguard of working in a highway work zone.

**MODULE 75105-03 – ELECTRICAL AND HIGH-VOLTAGE HAZARDS (2.5 Hours)**

1. Describe the risks associated with working around electricity and high voltage.
2. Describe the effects of electrical shock on the human body.
3. Define *insulation* and *grounding*.
4. Describe how a ground fault circuit interrupter (GFCI) works.
5. Explain where a ground fault circuit interrupter is required.
6. Discuss the purpose of an assured equipment grounding conductor program.
7. Define *lockout/tagout* and describe how it protects workers.



### **MODULE 75106-03 – FIRE PROTECTION AND PREVENTION (2.5 Hours)**

1. Identify the typical fuel sources found on a construction site.
2. Identify the typical sources of ignition found on a construction site.
3. Explain the procedures for proper handling and storage of flammable materials.
4. Explain the classes of fire extinguishers and name the type of fire for which each is most effective.
5. Identify the type and use of a fire extinguisher from its label.
6. Use a fire extinguisher to put out a fire.

### **MODULE 75107-03 – HAND- AND POWER-TOOL SAFETY (2.5 Hours)**

1. Identify different types of power tools.
2. Describe the uses of hand and power tools.
3. List the five most common power sources for power tools.
4. Describe the risks associated with hand tools.
5. Describe the risks associated with each type of power tool.
6. Explain how to minimize the risks associated with operating hand and power tools.

### **MODULE 75108-03 – WELDING SAFETY (2.5 Hours)**

1. Identify and describe the safety hazards associated with welding and metal cutting operations.
2. Identify the purpose and characteristics of a hot work permit.
3. Describe the fire hazards associated with welding operations.
4. Identify the hazards associated with handling and storing compressed gases.
5. Identify the hazards associated with toxic fumes generated by welding and cutting processes and the methods used to avoid these hazards.
6. Describe the methods used to prevent injury to workers, including use of correct personal protective equipment.

### **MODULE 75109-03 – FALL PROTECTION (2.5 Hours)**

1. Explain and identify safety hazards associated with working at elevated heights.
2. Demonstrate how to properly use fall-protection equipment.

### **MODULE 75110-03 – STEEL ERECTION (2.5 Hours)**

1. Describe the steel-erection process.
2. Identify common safety hazards associated with steel-erection jobs.
3. Explain the safeguards that are required during a job to prevent personal injury and damage to equipment and property.



### **MODULE 75111-03 – WALKING AND WORKING SURFACES (2.5 Hours)**

1. Explain the hazards associated with walking and working surfaces.
2. Describe how to avoid accidents and injuries on walking and working surfaces.
3. Explain how to respond to accidents and injury on walking and working surfaces.

### **MODULE 75112-03 – LADDERS AND SCAFFOLDING (2.5 Hours)**

1. Identify the different types of ladders and scaffolding used on a work site.
2. Describe how to safely use ladders and scaffolding.
3. Properly set up and use ladders and scaffolding.

### **MODULE 75113-03 – HORIZONTAL DIRECTIONAL DRILLING HAZARDS (2.5 Hours)**

1. Describe the horizontal directional drilling (HDD) process.
2. Identify common safety hazards associated with horizontal directional drilling jobs.
3. Describe how to avoid the hazards associated with horizontal directional drilling jobs.
4. Respond to utility strikes that may cause personal injury, equipment damage, and property damage.
5. Identify safety alert signs and symbols.

### **MODULE 75114-03 – HEAVY-EQUIPMENT, CRANE, AND RIGGING SAFETY (2.5 Hours)**

1. Describe the types and uses of heavy equipment.
2. Identify the hazards associated with the operation of heavy equipment, including cranes and rigging.
3. Describe the safeguards and safety procedures used when working with heavy equipment.

### **MODULE 75115-03 – TRENCHING SAFETY (2.5 Hours)**

1. Describe the process and purpose of excavation.
2. Explain and identify safety hazards associated with excavation.
3. Demonstrate and explain proper on-site safety and emergency-response procedures.
4. Identify the indications and explain the causes of an unstable trench.
5. Explain the importance of recognizing soil types with regard to excavation.
6. Describe the procedures used in shoring, sloping, and shielding safety methods.

### **MODULE 75116-03 – FORKLIFT SAFETY (2.5 Hours)**

1. Explain the elements of a pre-shift inspection.



2. Describe the practices for safe traveling.
3. Describe the practices for safe load handling.
4. Understand how to operate a forklift safely on ramps and docks.
5. Explain how to work safely around a forklift.

#### **MODULE 75117-03 – LOCKOUT/TAGOUT (2.5 Hours)**

1. Describe the lockout/tagout process.
2. Identify common safety hazards associated with lockout/tagout.
3. Describe the safeguards associated with lockout/tagout.

#### **MODULE 75118-03 – CONFINED SPACES (2.5 Hours)**

1. Describe the difference between a permit-required confined space and a non permit-required confined space.
2. Explain the purpose of an entry permit.
3. Explain the hazards associated with confined spaces.
4. Describe the responsibilities of all workers on the site.
5. Demonstrate and explain proper on-site safety and emergency-response procedures.

#### **MODULE 75119-03 – CONCRETE AND MASONRY (2.5 Hours)**

1. Explain and identify safety hazards associated with concrete construction and masonry work.
2. Demonstrate and explain proper on-site safety, including the use of personal protective equipment (PPE).



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**Materials and Equipment**

**MODULE 75101-03 – INTRODUCTION TO SAFETY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Cardboard boxes  
Module Examinations

**MODULE 75102-03 – HAZARD COMMUNICATION**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Appropriate personal protective equipment  
Material safety data sheets (MSDSs) for different types of materials used on a site  
Warning labels and signs  
Product labels  
Different types of respirators  
TV (optional)  
VCR (optional)  
The National Safety Compliance video *Hazard Communications for the New Millennium*  
(optional)  
Module Examinations  
Performance Profile Sheets

**MODULE 75103-03 – PERSONAL PROTECTIVE EQUIPMENT**

Overhead projector and screen  
Transparencies



Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Hard hat  
Glasses, goggles, and face shields  
Gloves  
Safety shoes  
Ear protection  
Different types of respirators  
Safety harnesses  
Lanyards  
Module Examinations  
Performance Profile Sheets

#### **MODULE 75104-03 – WORK-ZONE SAFETY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Different types of safety signs and tags  
Traffic control flags  
STOP/SLOW paddles  
Reflective vest  
Module Examinations  
Performance Profile Sheets

#### **MODULE 75105-03 – ELECTRICAL AND HIGH-VOLTAGE HAZARDS**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Electrical grounding conductor  
Ground fault circuit interrupter (GFCI)



Multimeter  
Continuity testers  
Lockout/tagout devices  
TV (optional)  
VCR (optional)  
The National Safety Compliance video *High Voltage Electrical Safety* (optional)  
Module Examinations

### **MODULE 75106-03 – FIRE PROTECTION AND PREVENTION**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Scrap wood  
Safety cans  
Paint  
Solvents  
LP gas tank  
Kerosene  
Paint thinner  
Portable fire extinguisher  
TV (optional)  
VCR (optional)  
*Fire Basics in the Workplace* video (optional)  
Module Examinations  
Performance Profile Sheets

### **MODULE 75107-03 – HAND- AND POWER-TOOL SAFETY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Hammer  
Screwdrivers  
Wrenches



Straightedges  
Scrap wood  
Hard hat  
Work gloves  
Safety goggles  
Chisel  
Wedge  
Punch  
Pneumatic tools  
Chain saw  
Portable fire extinguisher  
Portable hydraulic jack  
Bench grinder  
Circular saw with guards  
Box cutter  
Module Examinations  
Performance Profile Sheets

#### **MODULE 75108-03 – WELDING SAFETY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Compressed gas cylinder  
Welding shield  
Ear muffs  
Ear plugs  
Face shields  
Gloves  
Eye protection  
Leather welding hood  
Air-purifying respirators  
Supplied-air respirators  
Self-contained breathing apparatus  
Module Examinations  
Performance Profile Sheets





### **MODULE 75109-03 – FALL PROTECTION**

Overhead projector and screen  
Whiteboard/chalkboard  
Transparencies  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Body harnesses  
Typical lanyard  
Lanyard with shock absorber  
Rope grab  
Retractable lifeline  
Lifelines (vertical and horizontal)  
Eye bolt  
Double locking snaphook  
Buckles  
Carabiners  
Module Examinations  
Performance Profile Sheets

### **MODULE 75110-03 – STEEL ERECTION**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Synthetic, wire, and chain slings  
Web sling shackle  
Rigging hook with safety latch  
Eye bolt(s)  
Standard lifting clamp  
Lanyard  
Rope grab  
Double locking snap hook  
Body harness  
Module Examinations



### **MODULE 75111-03 – WALKING AND WORKING SURFACES**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
TV (optional)  
VCR (optional)  
*Housekeeping on the Job Site* video (optional)  
Module Examinations

### **MODULE 75112-03 – LADDERS AND SCAFFOLDING**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Straight ladder  
Extension ladder  
Stepladder  
Module Examinations  
Performance Profile Sheets

### **MODULE 75113-03 – HORIZONTAL DIRECTIONAL DRILLING HAZARDS**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Appropriate personal protective equipment  
Drill head  
Back-reamer  
Ground strike system  
Nonconductive gloves



Module Examinations  
Performance Profile Sheets

### **MODULE 75114-03 – HEAVY-EQUIPMENT, CRANE, AND RIGGING SAFETY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Module Examinations

### **MODULE 75115-03 – TRENCHING SAFETY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Type A soil samples  
Type B soil samples  
Type C soil samples  
Stable rock  
Module Examinations

### **MODULE 75116-03 – FORKLIFT SAFETY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Pre-shift inspection checklist  
TV (optional)  
VCR (optional)  
*Forklift Safety For Construction* video (optional)  
Module Examinations



Performance Profile Sheets

**MODULE 75117-03 – LOCKOUT/TAGOUT**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Lockout device  
Multiple lockout/tagout device  
Safety tag(s)  
Module Examinations  
Performance Profile Sheets

**MODULE 75118-03 – CONFINED SPACES**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper  
Confined space entry permit  
Detection meters  
Body harnesses  
Lifelines  
Respirators  
Module Examinations  
Performance Profile Sheets

**MODULE 75119-03 – CONCRETE AND MASONRY**

Overhead projector and screen  
Transparencies  
Whiteboard/chalkboard  
Markers/chalk  
Blank acetate sheets  
Transparency pens  
Pencils and scratch paper



Rebar  
Rebar cap  
Module Examinations