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FIELD SAFETY

Competencies/Objectives

MODULE 75101-03 – INTRODUCTION TO SAFETY

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- 1. Describe the difference between a permit-required confined space and a nonpermit-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

- 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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FIELD SAFETY

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

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

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

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

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

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

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

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FIELD SAFETY

Performance Tasks

MODULE 75101-03 - INTRODUCTION TO SAFETY

Task Number	Item	Date(s)	Recorded By
75101-1	Demonstrate proper manual lifting procedures.		

MODULE 75102-03 - HAZARD COMMUNICATION

Task Number	Item	Date(s)	Recorded By
75102-1	Label the required sections of a material safety data sheet (MSDS).		

MODULE 75103-03 – PERSONAL PROTECTIVE EQUIPMENT

Task Number	Item	Date(s)	Recorded By
75103-1	Demonstrate how to properly select and use the following general personal protective equipment: • Hard hat • Eye protection • Ear protection • Gloves • Safety boots • Fall protection • Respiratory protection		

MODULE 75104-03 - WORK-ZONE SAFETY

Task Number	Item	Date(s)	Recorded By
75104-1	Demonstrate how to properly use hand signals and/or traffic control devices.		

MODULE 75105-03 - ELECTRICAL AND HIGH-VOLTAGE HAZARDS

Task Number	Item	Date(s)	Recorded By
This is a knowledg	ge-based module; there is no performance testing.		

MODULE 75106-03 - FIRE PROTECTION AND PREVENTION

Task Number	Item	Date(s)	Recorded By
75106-1	Demonstrate how to fight a small fire with a fire extinguisher using the P.A.S.S. technique.		

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

Task Number	Item	Date(s)	Recorded By
75107-1	Demonstrate how to safely operate a hand or power tool.		

MODULE 75108-03 – WELDING SAFETY

Task Number	Item	Date(s)	Recorded By
75108-1	Perform a positive and negative fit check on a respiratory device.		

MODULE 75109-03 - FALL PROTECTION

Task Number	Item	Date(s)	Recorded By
75109-1	Demonstrate how to properly use fall-protection equipment.		

MODULE 75110-03 - STEEL ERECTION

Task Number	Item	Date(s)	Recorded By
This is a knowledge	ge-based module; there is no performance testing.		

MODULE 75111-03 - WALKING AND WORKING SURFACES

Task Number	Item	Date(s)	Recorded By
This is a knowled	ge-based module; there is no performance testing.		

MODULE 75112-03 – LADDERS AND SCAFFOLDING

Task Number	Item	Date(s)	Recorded By
75112-1	Demonstrate how to properly set up and use a ladder.		

MODULE 75113-03 – HORIZONTAL DIRECTIONAL DRILLING HAZARDS

Task Number	Item	Date(s)	Recorded By
75113-1	Identify utility markers by marker color.		
75113-2	Inspect and properly test nonconductive gloves.		

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

Task Number	Item	Date(s)	Recorded By
This is a knowled	lge-based module; there is no performance testing.		

MODULE 75115-03 – TRENCHING SAFETY

Task Number	Item	Date(s)	Recorded By
This is a knowledge-based module; there is no performance testing.			

MODULE 75116-03 - FORKLIFT SAFETY

Task Number	Item	Date(s)	Recorded By
75116-1	Demonstrate how to perform a pre-shift forklift inspection using a checklist.		

MODULE 75117-03 – LOCKOUT/TAGOUT

Task Number	Item	Date(s)	Recorded By
75117-1	Demonstrate how to properly use a lockout/tagout device.		

MODULE 75118-03 – CONFINED SPACES

Task Number	Item	Date(s)	Recorded By
75118-1	Demonstrate how to properly fill out a confined spaces work permit.		

MODULE 75119-03 - CONCRETE AND MASONRY

Date(s)	Recorded By
	Date(s)

This is a knowledge-based module; there is no performance testing.