**Worksite Safety 08: OSHA Power Tools and Excavations (RV-10456) – 1 hour course**

**Course Description**

It might seem silly to think of non-powered hand tools as hazardous, but anyone who’s ever hit a finger with the full force of a hammer blow or staple-gunned their hand might beg to differ. Power tools are relatively safe when used properly and well maintained, but an electric shock resulting from a defective or modified device can be deadly. This module will teach you the basics for keeping yourself and your coworkers out of harms way when using tools.

**Course Objectives**

Upon completion of the lesson, participants will be able to:

* List at least three basic hand and power tool safety rules
* Identify at least two precautions that are essential to safe use of:
* Name at least two guarding techniques or principles that apply to hand and power tools

**Course Outline**

**Introduction – Hand & Power Tools– 5 minutes**

Power tools are relatively safe when used with the proper PPE and when well-maintained, but an electric shock resulting from a defective or modified device can be deadly.

* Common Hazards
* General Tool Care

**Hand Tool Precautions – 5 minutes**

While the employer is responsible for ensuring that the tools and equipment issued to

employees are in safe working condition, the proper use and maintenance of the tools is

the responsibility of the employees.

**Power Tool Precautions – 5 minutes**

As with hand tools, it is the responsibility of the employer to make sure power tools are

provided to employees in good working order – but the employee is responsible for care

and maintenance.

* Guards
* Safety Switches
* Electric Tools
* The Why of GFI

**Abrasive Wheels & Tools – 5 minutes**

Power tools with abrasive grinding, cutting, polishing, and wire buffing create special

safety problems because they can throw off flying fragments with significant force –

which can have significant implications.

* Guarding Protection

**Pneumatic Tools – 5 minutes**

T Pneumatic tools include chippers, drills, hammers, and sanders that are powered by

compressed air.

**Power-Actuated Tools – 5 minutes**

Powder-actuated tools operate like a loaded gun and should be treated with the same

respect and precautions.

* Fasteners
* Consequences

**Other Tools – 5 minutes**

There are various other types of tools that can be used on the job and knowing how to mitigate any hazards and knowing safety precautions with their use is needed.

* Liquid Fuel Tools
* Hydraulic Power Tools
* Jacks

**Introduction – Excavations – 5 minutes**

OSHA’s standards concerning trenching and excavation apply to all open excavations made in the earth’s surface.

Preplanning

No matter how experienced the crew or how simple the situation, workers should always approach each new job with the utmost care and preparation.

* Site Conditions
* Excavating Near Utility Installations
* Worker Information

**Cave-ins and Protective Systems – 10 minutes**

Designing a protective system can be complex because many factors affect the safety of a given excavation, including the type of soil, the depth of cut, the water content of soil, changes due to weather and climate, or other operations in the vicinity.

* Preventing Cave-ins
* Other Precautions
* Installation and Removal
* Unsafe Spoil-Pile Placement
* Maintenance of Protective Systems

**Other Hazards & Protections – 10 minutes**

In addition to cave-ins and related hazards, workers involved in excavation work also are exposed to hazards involving falls, falling loads, and mobile equipment.

* Water Accumulation
* Hazardous Atmospheres
* Entering and Exiting Excavations
* Pier Holes and Confined Footing Excavations
* Protection from Vehicles
* Competent Person
* Inspection

**Conclusion**

* Summary
* Fact Sheets