# At the Job Site

# Weatherization Installer/Technician Fundamentals

Learning Objectives

By attending this session, participants will be able to:

* Describe typical pre-existing conditions that should be reported to the crew leader.
* List which conditions require deferral on a dwelling.
* Describe a well-organized job site.
* Perform routine maintenance on typical tools.
* Describe basic power tool safety.
* Discuss the purpose of safety protocols, and list four elements of creating a safe work environment.
* Demonstrate how to protect the interior and exterior environment.
* List the steps of wrapping up the work day.

Key Terminology

Corrective action

Deferral of services

Double-insulated tools

Foot-candle

High-Efficiency Particulate Air (HEPA) vacuum

Knob and tube wiring

Mold

Personal Fall Arrest System (PFAS)

Personal Protective Equipment (PPE)

Subgrantee

Tack pads

Supplemental Materials

Handouts & Resources

"12 Steps to Lead Safety." *WxTV.* Montana Weatherization Training Center. <www.wxtvonline.org>.

IN WAP Moisture Assessment Findings Form.

Powell, Kevin. “Q&A: What to Do About Mold on Framing Lumber?” *Journal of Light Construction* Mar. 2004. <www.jlconline.com>.

U.S. Department of Energy. Weatherization Assistance Program. "WPN 02-6 Weatherization Activities and Federal Lead-Based Paint Regulations. Attachment B: Lead Paint Decision Chart." 12 July 2002. <www.waptac.org>.

U.S. Department of Energy. Weatherization Assistance Program. “WPN 08-6: Lead Guidance Program Notice.” 22 Sept. 2008. <www.waptac.org>.

U.S. Department of Energy. Weatherization Assistance Program. “WPN 09-6 Lead Safe Weatherization (LSW) - Additional Materials and Information.” 22 Jan. 2009. <www.waptac.org>.

U.S. Department of Labor. Occupational Safety and Health Administration. “Appendix A to § 1910.134: Fit Testing Procedures (Mandatory).” <http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_id=9780&p\_table=STANDARDS>.

U.S. Department of Labor. Occupational Safety and Health Administration. “Lockout/Tagout Fact Sheet*.” <*www.osha.gov/OshDoc/data\_General\_Facts/factsheet-lockout-tagout.pdf>.

On-line Platform Lessons

Use these on-line interactive training modules as pre-requisites before students attend the course, or as in-class computer lab sessions. Users must first create an account at [www.nterlearning.org](http://www.nterlearning.org) to access.

i- 3.2 Moisture v1.0 <https://www.nterlearning.org/web/guest/course-details?cid=2005>

Relevant Standard Work Specifications

1.100 – Global Worker Safety

1.103 – Air Sealing – Safe Work Practices

1.104 – Insulation – Safe Work Practices

1.105 – Heating & Cooling Equipment – Safe Work Practices

1.106 – Ventilation Equipment – Safe Work Practices

1.107 – Baseload – Safe Work Practices

1.110 – Material Safety – Safe Work Practices

1.111 – Basements and Crawl Spaces – Safe Work Practices

Classroom Props & Activities

Typical supplies for managing dust and debris, including:

* Plastic sheeting
* Tapes (duct tape, painters’ tape, etc.)
* Tack mats
* Wet/dry sandpaper and mister
* HEPA vacuum

Typical PPE, including:

* Safety glasses, work gloves and hard hats
* Variety of respirators and dust masks
* Positive pressure respirator with hood and compressor
* Protective suits

Typical portable power tools and accessories, including:

* Reciprocating saw
* Circular saw
* Drill
* Nail gun

**Fit Test Demonstration:** After covering the materials on the slide “PPE” in the presentation, demonstrate the proper steps of a fit test using a volunteer from the class. If available, choose a volunteer with no facial hair that will hinder the fit test. Have the volunteer try on respirators from the sample you have available as classroom props. Once a selection is made based on comfort, have the volunteer assess the respirator according to fit test requirements: general fit and comfort, room for eye protection and talking, head movement; then go through the general exercises of breathing, moving, talking, grimacing and bending. Refer to OSHA 1910.134 Appendix A for a complete outline of the required steps.

Hands-on Props & Activities

**Power Tool Maintenance and Operation:** If it hasn’t been covered in previous lessons already, demonstrate basic tool maintenance and operation for the class. Make it interactive by asking for experienced volunteers from the class to demonstrate general maintenance, hook-up, blade or bit changes, and safe operation of various tools and equipment. Have them first select the appropriate PPE to be worn when using a given tool, and then demonstrate the use. Provide tips and pointers if the volunteer leaves anything out.

**Masking a Work Area:** After discussing how to create a safe job site in the presentation, designate an area of the classroom or lab as the temporary “job site.” Prepare ahead of time so there are objects that will need to be moved and some larger items that will need to be covered. Provide plastic sheeting, drop cloths, tape, and signs, and have the class prepare the job site as if they were going to conduct an interior or exterior dense pack sidewall insulation installation (or choose another measure but choose a messy one). Decide whether lead paint is an issue or not. Time them to see how quickly they can set up the area once they determine the approach. Evaluate their set up. Debrief in the classroom to determine what worked, what didn’t, and how it might go more quickly next time.

Class Overview

* Begin the class with some examples of how creating a safe, organized job site makes everything run more smoothly. It takes a little more time at the beginning but saves time and energy in the long run.
* Introduce students to guidelines and examples for reporting potentially hazardous pre-existing conditions that should result in corrective action or deferral of WAP services if discovered on the job site.
* During the interactive slides, give the students a chance to determine whether a scenario is a “walk away” or “run away” situation before revealing the answer.
* Use the Moisture Assessment Findings Form (or a similar, locally relevant form) to illustrate the proper documentation of conditions that should be part of the client file, in case of an appeal.
* Review and demonstrate proper tool maintenance and operation.
* Demonstrate a respirator fit test on a volunteer from the class.
* After discussing masking interior and exterior environments, provide a little more information on the specifics of lead safe work practices by showing the “12 Steps to Lead Safety” episode of WxTV. Follow the viewing with the Masking a Work Area activity previously described.