# Weatherization Crew Leader Job Task Analysis

Chuck Kurnik[1] and Sean Gasperson[2]

*1 National Renewable Energy Laboratory*
*2 Castle Worldwide Inc.*

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**Technical Report**
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National Renewable Energy Laboratory
15013 Denver West Parkway
Golden, CO 80401
303-275-3000 • www.nrel.gov

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# Introduction

The National Renewable Energy Laboratory (NREL) is contracted by the U.S. Department of Energy (DOE) Weatherization Assistance Program (WAP) to develop and maintain the resources under the Guidelines for Home Energy Professionals (GHEP) project. The purpose of the GHEP project is to increase the quality of work conducted for residential energy retrofits in the United States through the WAP network and other residential retrofit programs, NREL was tasked with developing GHEP resources that include the standard work specifications (SWS) and four advanced, competency-based home energy professionals (HEP) personnel certifications. Beginning in 2010 and continuing today, NREL has recruited more than 40 volunteer subject matter experts (SME) from the WAP network and the home performance industry to serve on committees to develop certification schemes and their requisite job task analysis (JTA) as the foundation of standardized certification and training programs.

As part of the GHEP strategy to increase the quality of work conducted for single-family, residential energy-efficiency retrofits, the HEP JTAs are used as the foundation for quality training programs and trainers. Accredited training programs ensure that individuals receive the proper training to do the quality work that is defined in the SWS. DOE contracted with the Interstate Renewable Energy Council (IREC) to develop an accreditation for energy-efficiency training programs based on the HEP JTAs. This accreditation is a third-party validation that an organization is qualified to teach the knowledge, skills, and abilities (KSA) outlined in the JTAs. This accredited training component of the GHEP project guarantees the existence and availability of high-quality standardized training programs within the home energy upgrade industry.

## Definition of a Job Task Analysis

A JTA is a foundation for any valid credentialing program and helps identify the core knowledge areas, critical work functions, and/or skills typically found across a representative sampling of current practitioners or job incumbent workers. Empirical results from a job analysis provide examinees and the public with a valid, reliable, fair, and realistic assessment that reflects the knowledge, skills, and abilities required to competently perform a job.

## Background

It is industry best practice to update a JTA approximately every 5 years. As part of the Crew Leader update effort in 2018, it was decided that the Retrofit Installer Technician (RIT) and Crew Leader (CL) JTA's would be combined into one comprehensive CL JTA. Combining the two JTA's stemmed from the fact that CLs regularly perform the same tasks as RITs, and CLs must be able to train RITs, in addition to the CL's supervisory tasks. Therefore, all knowledge and tasks that apply to RITs also apply to CLs.

The solution was to include the RIT role within the comprehensive CL JTA through the development of RIT badges. RIT badges would correspond to the tasks associated with the RIT role within the CL JTA. Completion of all RIT badges could be a prerequisite for CL exam, and candidates could earn badges in two ways either on the job, via a qualified supervisor, or by completing training and tasks at an accredited Weatherization Assistance Program (WAP) training center.

## Crew Leader Job Task Analysis Revision

A committee of 18 SMEs assembled by DOE and NREL met with trained psychometricians to delineate the roles of CL and RIT. The results of these meetings were used to update the CL JTA, create RIT badges which correspond to tasks within the CL JTA, and to create an exam blueprint. The existing RIT and CL JTAs were combined, reviewed, and revised to ensure that the knowledge and abilities measured by the CL examination reflect current practice in the field. In the fall of 2018, an online validation was performed to verify the results of the JTA and to finalize the examination blueprint. Ninety-five crew leaders from across the United States responded to the questionnaire.

### *Job Scope and Description*

In addition to the CL JTA, the committee reviewed and combined the job scope and description for the CL into one comprehensive CL job description. The revised CL job description is as follows:

"A Crew Leader is responsible for supervising and assisting in the retrofitting activities specified in the scope of work. He or she is responsible for interacting with the client plus managing personnel and materials on the job site in a safe and effective manner. The Crew Leader is responsible for quality control, testing procedures, documentation, and conducting a walk through in preparation that all work is completed in a satisfactory manner."

Below is the final JTA with associated KSAs, integrated with the exam blueprint. If an entity wishes to create an exam based on the JTA, the exam blueprint is used to identify the percentage of exam questions dedicated to each Domain and Task.

# Final Crew Leader JTA and Examination Blueprint

| Identifier | Content Area | Exam Weight |
|---|---|---|
| **D1.** | **Domain 1: Develop Plan to Execute Scope of Work** | **16.5%** |
| **D1.T1** | **Task 1: Identify materials and staffing needs.** | **3.9%** |
| | Knowledge of: | |
| D1.T1.K1 | Safety protocols | |
| D1.T1.K2 | Code compliance | |
| D1.T1.K3 | Scope of work | |
| D1.T1.K4 | Manufacturer specifications | |
| D1.T1.K5 | Materials required | |
| D1.T1.K6 | Personnel required | |
| D1.T1.K7 | Physical parameters of the job | |
| D1.T1.K8 | Schedule changes | |
| D1.T1.K9 | Resources | |
| D1.T1.K10 | SDS (Safety Data Sheet) | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| | Ability to: | |
| D1.T1.A1 | Review and interpret scope of work | |
| D1.T1.A2 | Integrate information from multiple sources | |
| D1.T1.A3 | Assess crew and contractor capabilities | |
| D1.T1.A4 | Estimate time required to complete each component of scope of work | |
| D1.T1.A5 | Identify, select, and organize materials to complete scope of work | |
| D1.T1.A6 | Estimate materials required | |
| D1.T1.A7 | Determine appropriate tools and equipment to complete job | |
| D1.T1.A8 | Track maintenance of tools and equipment | |
| D1.T1.A9 | Report missing or deficient tools and materials | |
| **D1.T2** | **Task 2: Prepare homeowner/occupants for the scope of work.** | **3.9%** |
| | Knowledge of: | |
| D1.T2.K1 | Safety protocols | |
| D1.T2.K2 | Code compliance | |
| D1.T2.K3 | Scope of work | |
| D1.T2.K4 | Job site logistics | |
| | Ability to: | |
| D1.T2.A1 | Clearly communicate scope of work to a layperson | |
| D1.T2.A2 | Provide documentation as needed | |
| D1.T2.A3 | Review installation procedures | |
| D1.T2.A4 | Identify preexisting conditions | |
| D1.T2.A5 | Review scope of work | |
| D1.T2.A6 | Identify potential hazards to the client that may occur during work installation and determine plan to avoid them | |
| **D1.T3** | **Task 3: Determine readiness of the job site for the scope of work.** | **3.6%** |
| | Knowledge of: | |
| D1.T3.K1 | Safety protocols | |
| D1.T3.K2 | Code compliance | |
| D1.T3.K3 | Scope of work | |
| D1.T3.K4 | Job site specifications | |
| D1.T3.K5 | Prior hazards or barriers | |
| | Ability to: | |
| D1.T3.A1 | Confirm materials match work specifications | |
| D1.T3.A2 | Identify materials and methods needed for job | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D1.T3.A3 | Review scope of work | |
| D1.T3.A4 | Confirm approval for state of work | |
| D1.T3.A5 | Confirm completion of prerequisite work | |
| **D1.T4** | **Task 4: Identify work site safety hazards and inform crew of safety requirements.** | **5.1%** |
| | Knowledge of: | |
| D1.T4.K1 | Safety protocols | |
| D1.T4.K2 | Manufacturer specifications | |
| D1.T4.K3 | Code compliance | |
| D1.T4.K4 | Scope of work | |
| | Ability to: | |
| D1.T4.A1 | Assign safety responsibilities | |
| D1.T4.A2 | Identify safety hazards | |
| D1.T4.A3 | Conduct an effective safety meeting | |
| **D2** | **Domain 2: Prepare and Maintain Job Site** | **20.0%** |
| **D2.T1** | **Task 1: Locate and verify access to specific work areas.** | **3.5%** |
| | Knowledge of: | |
| D2.T1.K1 | Job site specifics | |
| D2.T1.K2 | Scope of work | |
| | Ability to: | |
| D2.T1.A1 | Review the scope of work and job requirements | |
| D2.T1.A2 | Confirm approval for start of work | |
| D2.T1.A3 | Work with crew lead to get access to areas (moving personal belongings, getting into crawl space, etc.) | |
| D2.T1.A4 | Create and/or repair access to work areas | |
| **D2.T2** | **Task 2: Protect interior/exterior of house (e.g. with drop cloths, poly, Tyvek booties, pressurizations).** | **4.3%** |
| | Knowledge of: | |
| D2.T2.K1 | Job site specifics | |
| D2.T2.K2 | Hazard containment | |
| D2.T2.K3 | Safe practices | |
| D2.T2.K4 | Scope of work | |
| D2.T2.K5 | Drop cloths, tack mats | |
| | Ability to: | |
| D2.T2.A1 | Protect occupant belongings/property | |
| D2.T2.A2 | Follow safe practices | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| **D2.T3** | **Task 3: Set up tools.** | **4.4%** |
| | Knowledge of: | |
| D2.T3.K1 | Safety protocols | |
| D2.T3.K2 | Manufacturer specifications | |
| D2.T3.K3 | Scope of work | |
| | Ability to: | |
| D2.T3.A1 | Properly stage tools | |
| D2.T3.A2 | Verify operational status | |
| D2.T3.A3 | Report deficiencies | |
| **D2.T4** | **Task 4: Set up materials.** | **3.7%** |
| | Knowledge of: | |
| D2.T4.K1 | Job site specifics | |
| D2.T4.K2 | Safety protocols | |
| D2.T4.K3 | Scope of work | |
| | Ability to: | |
| D2.T4.A1 | Maintain integrity of materials | |
| D2.T4.A2 | Report deficiencies | |
| **D2.T5** | **Task 5: Report out of scope preexisting conditions** | **4.1%** |
| | Knowledge of: | |
| D2.T5.K1 | General construction | |
| D2.T5.K2 | Scope of work | |
| | Ability to: | |
| D2.T5.A1 | Identify and report preexisting condition (aesthetic/structural) | |
| **D3** | **Domain 3: Implement Scope of Work** | **37.8%** |
| **D3.T1** | **Task 1: Identify and report potential combustible safety hazards.** | **5.3%** |
| | Knowledge of: | |
| D3.T1.K1 | Combustion appliance exhaust venting systems | |
| D3.T1.K2 | Safety protocols | |
| D3.T1.K3 | Manufacturer specifications | |
| D3.T1.K4 | Ventilation systems | |
| D3.T1.K5 | Heat producing devices | |
| D3.T1.K6 | Applicable building science | |
| | Ability to: | |
| D3.T1.A1 | Identify and report potential safety issues | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| **D3.T2** | **Task 2: Install roof penetrations and weatherproofing.** | **3.8%** |
| | Knowledge of: | |
| D3.T2.K1 | Safety protocols | |
| D3.T2.K2 | General carpentry | |
| D3.T2.K3 | Code compliance | |
| D3.T2.K4 | Manufacturer specifications | |
| D3.T2.K5 | Tools | |
| D3.T2.K6 | Materials | |
| D3.T2.K7 | Roofing components | |
| D3.T2.K8 | Applicable building science | |
| | Ability to: | |
| D3.T2.A1 | Gather required materials to complete the task | |
| D3.T2.A2 | Gather required tools to complete the task | |
| D3.T2.A3 | Identify and repair leak sources | |
| D3.T2.A4 | Remove roofing system | |
| D3.T2.A5 | Install attic ventilation | |
| D3.T2.A6 | Flash new penetrations | |
| **D3.T3** | **Task 3: Rough in mechanical ventilation systems.** | **3.4%** |
| | Knowledge of: | |
| D3.T3.K1 | Safety protocols | |
| D3.T3.K2 | Tools | |
| D3.T3.K3 | Materials | |
| D3.T3.K4 | Framing basics | |
| D3.T3.K5 | Manufacturer specifications | |
| D3.T3.K6 | Penetration locations and water proofing | |
| D3.T3.K7 | Applicable building science | |
| | Ability to: | |
| D3.T3.A1 | Gather required materials to complete the task | |
| D3.T3.A2 | Gather required tools to complete the task | |
| D3.T3.A3 | Identify electrical safety components and hazards | |
| D3.T3.A4 | Identify plumbing safety components and hazards | |
| D3.T3.A5 | Remove old equipment | |
| D3.T3.A6 | Cut openings in building materials | |
| D3.T3.A7 | Install venting system and vent terminations | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D3.T3.A8 | Install, air seal, and insulate duct | |
| D3.T3.A9 | Identify when installation is complete | |
| **D3.T4** | **Task 4: Assist with mechanical systems upgrades.** | **2.9%** |
| | Knowledge of: | |
| D3.T4.K1 | Safety protocols | |
| D3.T4.K2 | Job site specifics | |
| D3.T4.K3 | Manufacturer specifications | |
| D3.T4.K4 | Code compliance | |
| D3.T4.K5 | Duct installation and sealing requirements | |
| D3.T4.K6 | Duct systems and air flow basics | |
| D3.T4.K7 | Sheet metal basics | |
| D3.T4.K8 | Tools | |
| D3.T4.K9 | Materials | |
| D3.T4.K10 | Applicable building science | |
| | Ability to: | |
| D3.T4.A1 | Identify electrical safety components and hazards | |
| D3.T4.A2 | Identify plumbing safety components and hazards | |
| D3.T4.A3 | Gather required materials to complete the task | |
| D3.T4.A4 | Gather required tools to complete the task | |
| D3.T4.A5 | Identify fuel system components | |
| D3.T4.A6 | Assist in removal of old equipment | |
| D3.T4.A7 | Rough in openings in building | |
| D3.T4.A8 | Repair, air seal, and insulate ducted distribution systems | |
| D3.T4.A9 | Assist in installation of combustion vent system exhaust | |
| D3.T4.A10 | Clean/replace air filters | |
| **D3.T5** | **Task 5: Install air sealing measures.** | **3.7%** |
| | Knowledge of: | |
| D3.T5.K1 | Safety protocols | |
| D3.T5.K2 | Code compliance | |
| D3.T5.K3 | Manufacturer specifications | |
| D3.T5.K4 | Material capability, durability, and strength | |
| D3.T5.K5 | Building envelope | |
| D3.T5.K6 | Scope of work | |
| D3.T5.K7 | Applicable building science | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D3.T5.K8 | Tools | |
| D3.T5.K9 | Materials | |
| D3.T5.K10 | How a blower door is used to determine building air leakage and identify envelope leaks and bypasses | |
| | Ability to: | |
| D3.T5.A1 | Identify electrical safety hazards | |
| D3.T5.A2 | Identify plumbing safety hazards | |
| D3.T5.A3 | Identify leaks and bypasses in the building envelope | |
| D3.T5.A4 | Gather required materials to complete the task | |
| D3.T5.A5 | Gather required tools to complete the task | |
| D3.T5.A6 | Block large openings | |
| D3.T5.A7 | Seal leaks and bypasses in the building envelope | |
| D3.T5.A8 | Verify that air sealing is effective | |
| D3.T5.A9 | Remove and replace insulation | |
| **D3.T6** | **Task 6: Install or repair vapor retarders.** | **3.1%** |
| | Knowledge of: | |
| D3.T6.K1 | Safety protocols | |
| D3.T6.K2 | Manufacturer specifications | |
| D3.T6.K3 | Tools | |
| D3.T6.K4 | Materials | |
| D3.T6.K5 | Code compliance | |
| D3.T6.K6 | Scope of work | |
| D3.T6.K7 | Moisture source identification and control | |
| D3.T6.K8 | Applicable building science | |
| | Ability to: | |
| D3.T6.A1 | Identify plumbing safety components and hazards | |
| D3.T6.A2 | Remove all organic/inorganic materials | |
| D3.T6.A3 | Gather required materials to complete the task | |
| D3.T6.A4 | Gather required tools to complete the task | |
| D3.T6.A5 | Install vapor retarder and seal joints and seams | |
| D3.T6.A6 | Report moisture concerns | |
| **D3.T7** | **Task 7: Install insulation.** | **3.9%** |
| | Knowledge of: | |
| D3.T7.K1 | Blower door testing | |
| D3.T7.K2 | Building envelope | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D3.T7.K3 | Code compliance | |
| D3.T7.K4 | Coverage charts | |
| D3.T7.K5 | Dense pack procedures | |
| D3.T7.K6 | Depth markers | |
| D3.T7.K7 | Drainage planes | |
| D3.T7.K8 | Drill access points | |
| D3.T7.K9 | Ducted distribution systems | |
| D3.T7.K10 | Framing | |
| D3.T7.K11 | General carpentry | |
| D3.T7.K12 | Heat producing devices | |
| D3.T7.K13 | Installation techniques | |
| D3.T7.K14 | Insulation equipment | |
| D3.T7.K15 | Limitations of components | |
| D3.T7.K16 | Manufacturer specifications | |
| D3.T7.K17 | Probing techniques | |
| D3.T7.K18 | R-values | |
| D3.T7.K19 | Safety protocols | |
| D3.T7.K20 | Scope of work | |
| D3.T7.K21 | Testing procedures | |
| D3.T7.K22 | Type of building structures | |
| D3.T7.K23 | Types of insulation materials and when to use them | |
| D3.T7.K24 | Applicable building science | |
| | Ability to: | |
| D3.T7.A1 | Gather required materials to complete the task | |
| D3.T7.A2 | Gather required tools to complete the task | |
| D3.T7.A3 | Operate insulation equipment | |
| D3.T7.A4 | Install insulation dams | |
| D3.T7.A5 | Compare material use to coverage required (bags consumed) | |
| D3.T7.A6 | Confirm air sealing is complete | |
| D3.T7.A7 | Confirm building component integrity | |
| D3.T7.A8 | Confirm clearance to combustibles | |
| D3.T7.A9 | Confirm electrical is flagged | |
| D3.T7.A10 | Confirm exhaust fans are ducted to outside and insulated | |
| D3.T7.A11 | Confirm HVAC duct work is intact, sealed, supported, and insulated | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D3.T7.A12 | Confirm vertical insulation | |
| D3.T7.A13 | Fill all cavities | |
| D3.T7.A14 | Fine tune machine for application (density) | |
| D3.T7.A15 | Gain access to all building cavities, locate all horizontal blocks | |
| D3.T7.A16 | Identify electrical safety components and hazards | |
| D3.T7.A17 | Identify plumbing safety components and hazards | |
| D3.T7.A18 | Install baffles, blocking, platforms, and insulation dams | |
| D3.T7.A19 | Install horizontal insulation | |
| D3.T7.A20 | Install vertical insulation | |
| D3.T7.A21 | Locate drill points | |
| D3.T7.A22 | Maintain rated R values | |
| D3.T7.A23 | Plug hole, patch weather barrier, put siding back, seal openings, caulk joints | |
| D3.T7.A24 | Remove and replace various types of siding | |
| D3.T7.A25 | Verify appropriate density | |
| **D3.T8** | **Task 8: Install windows and doors.** | **2.6%** |
| | Knowledge of: | |
| D3.T8.K1 | Safety protocols | |
| D3.T8.K2 | Manufacturer specifications | |
| D3.T8.K3 | Code compliance | |
| D3.T8.K4 | Scope of work | |
| D3.T8.K5 | Drainage planes | |
| D3.T8.K6 | Weatherproofing/flashing techniques | |
| D3.T8.K7 | General carpentry | |
| D3.T8.K8 | Tools | |
| D3.T8.K9 | Materials | |
| D3.T8.K10 | Window and door types | |
| D3.T8.K11 | Vapor barriers | |
| D3.T8.K12 | Applicable building science | |
| | Ability to: | |
| D3.T8.A1 | Gather required materials to complete the task | |
| D3.T8.A2 | Gather required tools to complete the task | |
| D3.T8.A3 | Remove old windows and doors | |
| D3.T8.A4 | Check and install weatherproofing/ flashing | |
| D3.T8.A5 | Install air barrier and ensure drainage | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| **D3.T9** | **Task 9: Install baseload measures.** | **2.5%** |
| | Knowledge of: | |
| D3.T9.K1 | Safety protocols | |
| D3.T9.K2 | Manufacturer specifications | |
| D3.T9.K3 | Code compliance | |
| D3.T9.K4 | Scope of work | |
| D3.T9.K5 | Tools | |
| D3.T9.K6 | Materials | |
| D3.T9.K7 | Applicable building science | |
| | Ability to: | |
| D3.T9.A1 | Gather required materials to complete the task | |
| D3.T9.A2 | Gather required tools to complete the task | |
| D3.T9.A3 | Follow manufacturer specifications | |
| **D3.T10** | **Task 10: Identify and report deviations from scope of work.** | **3.0%** |
| | Knowledge of: | |
| D3.T10.K1 | Scope of work | |
| D3.T10.K2 | Applicable building science | |
| | Ability to: | |
| D3.T10.A1 | Identify deviation | |
| D3.T10.A2 | Report deviation | |
| D3.T10.A3 | Request direction for modified scope of work | |
| D3.T10.A4 | Implement modified scope of work | |
| **D3.T11** | **Task 11: Clean all debris and work materials from the job site.** | **3.8%** |
| | Knowledge of: | |
| D3.T11.K1 | Safety protocols | |
| D3.T11.K2 | Hazard containment and disposal procedures | |
| D3.T11.K3 | Recyclable materials | |
| D3.T11.K4 | Materials SDS (Safety Data Sheet) | |
| D3.T11.K5 | Tool inventory | |
| D3.T11.K6 | Applicable building science | |
| | Ability to: | |
| D3.T11.A1 | Remove containment | |
| D3.T11.A2 | Properly contain, sort, transport, and dispose of materials and waste | |
| | | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| **D4** | **Domain 4: Manage Project** | **18.8%** |
| **D4.T1** | **Task 1: Conduct diagnostic testing.** | **4.4%** |
| | Knowledge of: | |
| D4.T1.K1 | Safety protocols | |
| D4.T1.K2 | Manufacturer specifications | |
| D4.T1.K3 | Code compliance | |
| D4.T1.K4 | Scope of work | |
| D4.T1.K5 | Diagnostic equipment testing procedures | |
| D4.T1.K6 | When tests are necessary, e.g., conducting combustion safety test-out after any work that might impact draft, before leaving house | |
| | Ability to: | |
| D4.T1.A1 | Perform blower door air leakage testing | |
| D4.T1.A2 | Perform combustion safety testing | |
| D4.T1.A3 | Conduct IR scans | |
| D4.T1.A4 | Conduct room to room pressure testing | |
| D4.T1.A5 | Interpret and document the testing results | |
| D4.T1.A6 | Compare results to jurisdiction requirements | |
| **D4.T2** | **Task 2: Adjust scope of work as needed to reflect current conditions.** | **3.1%** |
| | Knowledge of: | |
| D4.T2.K1 | Safety protocols | |
| D4.T2.K2 | Code compliance | |
| D4.T2.K3 | Scope of work | |
| D4.T2.K4 | Building techniques | |
| D4.T2.K5 | Building science | |
| D4.T2.K6 | Building materials | |
| D4.T2.K7 | Required forms and documentation | |
| | Ability to: | |
| D4.T2.A1 | Document changes or agreements with responsible party in writing as necessary | |
| D4.T2.A2 | Interpret scope of work | |
| D4.T2.A3 | Integrate information from multiple sources | |
| D4.T2.A4 | Estimate time required | |
| D4.T2.A5 | Estimate materials required | |
| D4.T2.A6 | Communicate changes properly through chain of command | |
| D4.T2.A7 | Identify deviations from the scope of work | |
| D4.T2.A8 | Set expectations with the responsible party regarding scope of work changes | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D4.T2.A9 | Process forms and documentation | |
| **D4.T3** | **Task 3: Post necessary paperwork, (e.g. permits, lead-based paint EPA requirements, historic preservation).** | **3.4%** |
| | Knowledge of: | |
| D4.T3.K1 | Safety protocols | |
| D4.T3.K2 | Code compliance | |
| D4.T3.K3 | Scope of work | |
| D4.T3.K4 | Posting requirements of permits, certificates, and signage | |
| **D4.T4** | **Task 4: Monitor safety practices.** | **4.7%** |
| | Knowledge of: | |
| D4.T4.K1 | Safety protocols | |
| D4.T4.K2 | Manufacturer specifications | |
| D4.T4.K3 | Code compliance | |
| D4.T4.K4 | Scope of work | |
| | Ability to: | |
| D4.T4.A1 | Recognize noncompliance with safety protocols | |
| D4.T4.A2 | Enforce safety protocols | |
| D4.T4.A3 | Make onsite corrections to ensure safety | |
| **D4.T5** | **Task 5: Maintain and document project progression, personnel control, and compliance.** | **3.3%** |
| | Knowledge of: | |
| D4.T5.K1 | Safety protocols | |
| D4.T5.K2 | Manufacturer specifications | |
| D4.T5.K3 | Code compliance | |
| D4.T5.K4 | Scope of work | |
| D4.T5.K5 | Material disposal requirements | |
| D4.T5.K6 | Appropriate forms and written documentation | |
| D4.T5.K7 | Prerequisite and individual tasks that make up the scope of work | |
| D4.T5.K8 | Capabilities and limitations of members of the crew and contractors | |
| D4.T5.K9 | Required standards and procedures | |
| | Ability to: | |
| D4.T5.A1 | Verify that all components of a day's scope of work have been completed and cleaned up appropriately | |
| D4.T5.A2 | Conduct a visual inspection | |
| D4.T5.A3 | Monitor and adjust use of resources | |
| D4.T5.A4 | Supervise work in progress | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D4.T5.A5 | Prioritize activities of crew | |
| D4.T5.A6 | Confirm and document with notes or images that assigned tasks are completed (e.g. quantities, materials used, who completed the task, sign off, pictures) | |
| D4.T5.A7 | Identify and explain deviations of the scope of work | |
| D4.T5.A8 | Gain permission(s) to revise and adjust scope of work as appropriate | |
| D4.T5.A9 | Provide corrective actions as necessary | |
| | | |
| **D5** | **Domain 5: Finalize Job** | **6.9%** |
| **D5.T1** | **Task 1: Verify that all components of the scope of work have been completed in compliance with required codes and standards.** | **3.8%** |
| | Knowledge of: | |
| D5.T1.K1 | Safety protocols | |
| D5.T1.K2 | Manufacturer specifications | |
| D5.T1.K3 | Code compliance | |
| D5.T1.K4 | Scope of work | |
| D5.T1.K5 | Diagnostic equipment | |
| D5.T1.K6 | Data collection | |
| D5.T1.K7 | Required standards and procedures | |
| D5.T1.K8 | Hazard containment | |
| D5.T1.K9 | Applicable building science | |
| D5.T1.K10 | Required signatures | |
| | Ability to: | |
| D5.T1.A1 | Use diagnostic equipment | |
| D5.T1.A2 | Evaluate a project for compliance with program or policy requirements and applicable codes and standards | |
| D5.T1.A3 | Verify that all debris and work materials have been cleaned from the job site | |
| D5.T1.A4 | Review scope of work with responsible party | |
| D5.T1.A5 | Provide client education according to specified standards of quality and performance | |
| D5.T1.A6 | Communicate project close out (product manuals, utility rebates, next steps, etc.) | |
| D5.T1.A7 | Verify placement of all required insulation certificates and that client has received copies of user manuals for any equipment installed | |
| D5.T1.A8 | Perform walk through with homeowner/responsible party | |
| D5.T1.A9 | Obtain homeowner/responsible party job-completion sign-off signatures as required | |
| **D5.T2** | **Task 2: Complete all post-work documentation as required (e.g. materials, labor hours, photos, certified renovator signatures, information for inspectors).** | **3.1%** |
| | Knowledge of: | |
| D5.T2.K1 | Code compliance | |
| D5.T2.K2 | Scope of work | |

| Identifier | Content Area | Exam Weight |
|---|---|---|
| D5.T2.K3 | Required documentation | |
| | Ability to: | |
| D5.T2.A1 | Integrate or record information from multiple sources | |