



Building
Performance
Institute

Cold Climate Air Source
Heat Pump Assessor

CERTIFICATE SCHEME HANDBOOK

Notice

Individuals interested in obtaining the BPI Cold Climate Air Source Heat Pump (ccASHP) Assessor Certificate of Knowledge will need to know the scope of the certificate and all requirements. This scheme handbook outlines the knowledge needed for individuals to obtain the BPI Cold Climate Air Source Heat Pump Assessor Certificate of Knowledge.

Information in this scheme handbook represents the policies at the date of publication and supersedes information contained in any previously published documents.

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Acknowledgements

The development of this certification scheme was made possible through the generous support of TRC. Their commitment to workforce education and promoting best practices in the home performance sector has been instrumental in creating this certificate. We extend our sincere appreciation for their partnership in ensuring that professionals have access to high-quality, credentials that support excellence in the industry.

TRC stands for adaptability. With direction setting perspectives and partnerships, our 8,000+ tested practitioners in advisory, consulting, construction, engineering and management services deliver unique resolutions that answer any built or natural imperative. By creating new pathways for the world to thrive, we help our clients adapt to change and achieve long-lasting results while solving the challenges of making the Earth a better place to live — community by community and project by project.

The Building Performance Institute, Inc., would also like to thank the dedicated professionals who participated in the development of this certificate:

- Kelly Cutchin
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In Memoriam: Dan Wildenhaus

We were deeply saddened by the unexpected passing of Dan Wildenhaus, a respected subject matter expert in cold climate air source heat pumps and a key contributor to this Certificate of Knowledge.

Dan played a vital role in shaping industry best practices and supporting the growth of clean energy solutions in cold climates. His expertise, dedication, and commitment to advancing the field were invaluable. His contributions will continue to guide the work of practitioners and inspire the next generation of clean energy leaders.

Disclaimer

Eligibility standards, exam content, exam standards, fees, and guidelines are subject to change. BPI will keep the most up-to-date version of this document posted at www.bpi.org. Prior to participating in any available service through BPI, check to ensure that you have based your decision to proceed on the most up-to-date information available. BPI reserves the right to modify documents.

Table of Contents

Table of Contents	i
About BPI	1
BPI Certificate Schemes	1
Outline of the Cold Climate Air Source Heat Pump Assessor Certificate	1
Preparing for the Exam	2
Multiple-Choice Exam	3
Knowledge Testing List	4
Standards of Reference	15
Exam Security	15
Granting	15
Surveillance	15
File Review	15
Corrective / Preventative Action	15
Withdrawal of Certificate of Knowledge	16
Complaints	16
Secondary and Tertiary Appeal Procedures	17
Comments	17
Appendix A - Code of Conduct	17
Appendix B - Code of Ethics	19
Terms and Definitions	22

1. About BPI

Founded in 1993, the Building Performance Institute (BPI) is the nation's premier certification and standard-setting organization for home performance professionals. BPI is accredited by the American National Standards Institute, Inc. (ANSI) as a developer of American National Standards. BPI is also accredited as a certifying body for personnel credentials by the ANSI National Accreditation Board (ANAB). BPI develops technical standards for home performance. From these standards, BPI develops rigorous online and field exams to credential the workforce. BPI understands the importance of impartiality in carrying out its certification activities, managing conflicts of interest, and ensuring the objectivity of its certification activities.

BPI offers five certificates ([Building Science Principles](#), [Healthy Housing Principles](#), [Site Supervisor](#), [Total Building Performance](#) and [Cold Climate Air Source Heat Pump Assessor](#)) that support professional growth in building performance and healthy housing. From foundational knowledge in building science and healthy housing principles to assessment, advanced diagnostics and on-site leadership, these credentials help ensure quality, safety, and efficiency in home energy and retrofit work.

In addition, BPI offers 16 professional certifications. Today, BPI Certified Professionals hold more than 18,000 active certifications, supported by a nationwide network of over 100 BPI Test Centers and 250 Proctors.

BPI is a 501(c)(3) nonprofit corporation, incorporated in New York State on January 18, 1996 (corporation number 14-1789014). Our mission is to develop technical standards and provide credentialing for individuals and organizations in the residential retrofit industry. BPI is headquartered in Saratoga Springs, NY.

2. BPI Certificate Schemes

BPI's certificate schemes are developed and continuously reviewed by dedicated scheme committees composed of subject matter experts—professionals with recognized credentials and extensive industry experience. These committees regularly evaluate statistics, monitor industry developments, and assess current certificate scheme requirements to ensure relevance and quality.

Industry feedback is a vital part of this process. Committee members actively seek input from a variety of external sources, including:

- industry associations
- professional groups
- government agencies
- consumer/owner advocacy groups
- manufacturers

3. Outline of the Cold Climate Air Source Heat Pump Assessor Certificate

This scheme establishes the scope of the Cold Climate Air Source Heat Pump (ccASHP) Assessor Certificate of Knowledge.

The ccASHP Assessor Certificate defines the knowledge required to evaluate a home's suitability for a cold-climate air-source heat pump retrofit.

A ccASHP Assessor has foundational knowledge of residential heating and cooling systems, particularly cold-climate heat pumps. They can assess how building envelope quality, existing HVAC and electrical systems, and site conditions affect system feasibility and homeowner comfort.

Core Competencies:

- Understands ccASHP operation, performance in cold conditions, and manufacturer data.
- Identifies when supplemental or backup heat is required.
- Evaluates key aspects of the home's envelope, HVAC distribution, and electrical service.
- Recognizes common system types, configurations, and site conditions.
- Collects and communicates accurate site data for design and installation teams.
- Recognizes red-flag conditions (safety, electrical, or moisture issues)
- Understands homeowner priorities (comfort, cost, carbon reduction) and aligns findings accordingly.
- Knows when to refer issues beyond their scope to licensed professionals.
- Is familiar with energy-cost comparisons, incentives, and code or permitting considerations.
- Communicates effectively with homeowners and project teams using proper terminology.
- Demonstrates sound judgment, attention to detail, and adherence to safety and documentation standards.

While not a designer or installer, the Assessor reliably determines whether a home is an appropriate candidate for a cold-climate air-source heat pump retrofit.

Note: This certificate does not confer a license to practice; all holders must comply with applicable laws and regulations.

4. Preparing for the Exam

Before you register for the exam:

- Download the latest version of the BPI ccASHP Assessor Certificate Scheme Handbook from <https://bpi.org/certificates/ccashp/>
- Read and understand all the information.
- Refer to the Knowledge Testing List section to be sure that you understand the knowledge required for this certificate.
- Obtain reference materials or take a class to prepare and study for the multiple-choice exam.

4.1 Prerequisites

Prerequisites help potential test takers determine their readiness to challenge the exam.

Prerequisites include at least one of the following:

- BPI certification
- NATE Heat Pump (Service or Installation)
- RESNET HERS Rater or RFI
- HVAC Excellence Heat Pump (Employment Ready or Professional Technician)
- Energy Skilled Heat Pump: [Energy Skilled Heat Pump Programs](#) | [Building Science Education](#)
Or similar industry credentials
- At least 1 year of technical trades instruction, including HS-level vocational instruction, or
- At least 1 year of work experience in a field directly related to heating and cooling systems, such as HVAC installation, maintenance, energy auditing, or building performance assessment.

Candidates confirm their qualifications through a self-reporting checklist online before they take the exam. BPI conducts random audits to maintain program integrity. See Section 10 for BPI's prerequisite auditing process.

Certificate Fees

BPI certificate exams are available online and can be taken any day of the week, at any hour of the day. In accessing the BPI Certificate Portal, you will be able to complete the prerequisite checklist, pay for and take the exam.

The cost of the Cold Climate Air Source Heat Pump (ccASHP) Assessor Certificate of Knowledge exam is \$175.

If a candidate self-attests to meeting the required prerequisites and is later unable to provide supporting documentation, resulting in certificate revocation, no refunds will be issued.

5. Multiple-Choice Exam

In order to obtain the Cold Climate Air Source Heat Pump (ccASHP) Assessor Certificate of Knowledge, a test taker must successfully complete an open book online multiple-choice exam to assess competency in the critical tasks and knowledge areas defined by BPI.

The multiple-choice exam will consist of 75 scored multiple-choice questions. There is no time limit for the exam. The multiple-choice exam consists of multiple forms with each form consisting of unique questions. The exam passing score is 80%.

Discussion or disclosure of the content of the exam, orally or in writing, or by any other means, is prohibited. Theft or attempted theft of exam items is punishable to the fullest extent of the law, termination of status, civil liability, criminal prosecution, or other appropriate sanctions.

6. Knowledge Testing List

The Knowledge required for this exam is detailed below.

DOMAIN 1: COLD CLIMATE AIR SOURCE HEAT PUMP (CCASHP) FUNDAMENTALS

12%

Task 1: Define Cold Climate Air Source Heat Pump (ccASHP) and Describe Key Characteristics

Knowledge of:

- Definition of a heat pump
- Differences between standard air source heat pumps (ASHPs) and cold climate air source heat pumps (ccASHPs)
- Typical minimum outdoor operating temperatures

Task 2: Explain Performance and Capacity Derating at Low Outdoor Temperatures

Knowledge of:

- Capacity reduction as outdoor temperature drops
- Awareness that manufacturer performance charts for heating capacity at cold temperatures exist
- Implications of heating capacity at the heating load design temperature and suitability for a home

Task 3: Explain Defrost Cycle Function and Client Impact

Knowledge of:

- Frost formation on outdoor coils in cold climates
- Purpose and operation of defrost cycles in ccASHPs
- Importance of explaining comfort impacts and brief defrost interruptions to the homeowner

Task 4: Discuss Efficiency Ratings and Cold Climate Certifications

Knowledge of:

- Key metrics: HSPF, COP, and capacity maintenance for cold-climate performance
- ENERGY STAR® and CEE certification
- NEEP ccASHP specifications as an indicator of suitability

Task 5: Explain Supplemental and Secondary Heating Requirements

Knowledge of:

- Definitions of supplemental heat, secondary heat, auxiliary heat, and emergency heat
- Situations where supplemental or secondary heat may be needed
- Strategies for integrating supplemental systems (e.g., electric resistance, dual-fuel)

Task 6: Explain the Benefits and Limitations of ccASHPs in Home Retrofits

Knowledge of:

- Benefits: energy efficiency, decarbonization potential, improved comfort
- Limitations: capacity at very low temperatures, electrical service needs, etc

Task 7: Identify Common ccASHP Equipment Types and Configurations

Knowledge of:

- Typical system types used in existing homes: ductless, ducted, or short-ducted systems
- Single-zone vs. multi-zone configurations

DOMAIN 2: **IDENTIFY CLIENT NEEDS AND PRIORITIES** 4%

Task 1: Identify Client Priorities and Motivations

Knowledge of:

- Methods for finding homeowner goals—energy savings, comfort, lower carbon, and fuel changes
- Techniques for restating and checking client answers to avoid misunderstandings

Task 2: Assess Occupancy and Lifestyle Patterns

Knowledge of:

- Link between household size, daily routines, room use, and heating and cooling needs
- Effect of unusual occupancy (e.g., remote work, short-term rentals, vacation homes, multi-generational living) on ccASHP fit

Task 3: Identify Comfort and Reliability Concerns

Knowledge of:

- Reports of comfort issues: drafts, cold spots, hot spots, past equipment failures
- Common homeowner worries about noise, airflow, dryness, high humidity areas, in forced-air systems

Task 4: Analyze Operating Cost

Knowledge of:

- Steps for a basic cost comparison between current heating fuel and a ccASHP—no detailed rate calculations

Task 5: Evaluate Risk Tolerance and Technology Adoption

Knowledge of:

- Signs the client is open to new technology (e.g., smart controls, filter upkeep)
- Typical homeowner concerns about new equipment or local service and ways to address them

Task 6: Recommend a Plan for Resilience and Supplemental Heat

Knowledge of:

- Supplemental heat options for extreme cold (e.g., keeping existing furnace/boiler, adding electric heat) or power outages (e.g., backup generator, battery, solar with battery)

Task 7: Identify Space and Aesthetic Constraints

Knowledge of:

- Homeowner preferences, limits on indoor-unit visibility and placement, outdoor placement, line routing, and snow/ice protection
- HOA or historic-district rules that may apply

Task 8: Assess Future Plans and Load Changes

Knowledge of:

- Possible load changes from planned renovations, insulation upgrades, EV charging, solar, batteries, or occupancy changes

DOMAIN 3: SITE FEASIBILITY AND CONSTRAINTS 12%

Task 1: Evaluate Outdoor Unit Placement and Clearances

Knowledge of:

- Minimum footprint for pad or wall-bracket
- Manufacturer side/rear/front /top clearances
- Set-back distances from bedrooms, windows, air-intake, or all vents
- Clearance from walls, fences, wind baffles and barriers, and property lines

Task 2: Identify Access for Delivery and Installation

Knowledge of:

- Path width for moving equipment
- Stair, gate, slope, or landscaping obstacles
- Crane or lift needs for upper stories

Task 3: Determine Support and Mounting Surfaces

Knowledge of:

- Acceptable bases: ground pad, wall bracket, rooftop frame
- Load-bearing and vibration-isolation needs
- Level surface, frost heave, or settling/rot signs

Task 4: Evaluate for Snow, Ice, Water, and Drainage Exposure

Knowledge of:

- Minimum elevation above local average snow depth
- Avoid roof-drip zones, condensate from other units, snow slides, and prevailing-wind drift paths
- Ground slope for defrost run-off

Task 5: Identify Defrost Drainage Path

Knowledge of:

- Route away from walkways to prevent ice
- Freeze-protection features (drain pan heater)

Task 6: Determine Line-Set and Electrical Routing Feasibility

Knowledge of:

- Feasible penetrations through walls/soffits
- Attic, crawl, or chase runs clear of asbestos/vermiculite, and combustibles
- Sealing and sleeving penetrations
- Maximum line-set length/vertical rise guidelines
- Need for UV-protected or covered runs
- Disconnect and whip location rules
- Surge protection and voltage monitoring—importance

Task 7: Identify Service and Maintenance Access (Present and Future)

Knowledge of:

- Clearance for coil cleaning and gauge hookup
- Working clearance codes for electrical/refrigerant service
- Safe ladder or ground workspace
- Year-round accessibility (e.g., snow, landscaping)

Task 8: Evaluate Noise, Aesthetic, and Code Constraints

Knowledge of:

- Local/HOA noise limits in dB(A)
- Property-line and noise-level setbacks
- Screening/enclosure options that maintain airflow
- Visibility, color, and historic-district rules

Task 9: Determine Zoning, Permit, and HOA Rules

Knowledge of:

- Municipal setbacks and height limits
- Historic district/façade restrictions
- Permit types commonly required for heat pump installs

Task 10: Evaluate Site Hazards and Red-Flag Conditions

Knowledge of:

- Overhead power lines or buried utilities
- Poor soil stability, standing water (e.g., pools, ponds)
- Wildlife, vandalism, or other physical security concerns

DOMAIN 4: EXISTING HVAC AND DISTRIBUTION ASSESSMENT

16%

Task 1: Identify and Recognize Existing HVAC Equipment

Knowledge of:

- Atmospheric/condensing furnace, boilers (oil, gas, combi), packaged AC/heating units, AC of all types, rooftop, unitary room heaters, wood/pellet stoves, electric resistance heat
- Name-plate data: input/output BTU/h, AFUE/SEER/HSPF, refrigerant, voltage/FLA
- Typical service-life ranges and date-code formats

Task 2: Determine Equipment Age, Condition, and Efficiency

Knowledge of:

- End-of-life clues (heat-exchanger corrosion, cracked burners, leaking sections)
- AFUE/SEER look-up sources & historical standards
- Age/efficiency and how it affects operating cost & dual-fuel economics

Task 3: Determine Supplemental Heat Sources and Readiness

Knowledge of:

- Common sources: gas/oil furnace, boiler, electric resistance, wood/pellet stove
- Name-plate capacity, operational status, past-failure notes
- Control readiness: identifying dual-fuel thermostats, wire types (number of conductors), outdoor lock-outs, shut-offs

Task 4: Describe Distribution System Type, Construction, and Layout

Knowledge of:

- Types: forced-air ducts (metal, flex, building cavities), hydronic radiators/baseboards, radiant floor, unitary heaters
- Duct construction details: sheet-metal, flex, building cavities, duct board
- Existing supply/return register patterns, hydronic loop/branch runs, zone dampers/radiator valves

Task 5: Recognize Distribution Condition and Defects

Knowledge of:

- Blocked/closed registers or radiators
- Duct leaks, crushed sections, missing insulation, asbestos board
- Insulation and seal quality along accessible runs
- Hydronic imbalance signs: cold radiators, noisy air vents

Task 6: Explain Distribution Capacity and Airflow/Heat Delivery Performance

Knowledge of:

- Air flow confirmation at all the supply registers
- Qualitative airflow checks (tissue test, supply/return ΔT)
- Rule-of-thumb airflow per BTU (ducts)
- Visual signs of undersized grilles or short radiator runs
- Static-pressure red flags (ESP > 0.8 in w.c.) or manufacturer specifications

Task 7: Evaluate Fossil Fuel Equipment for Retention or Decommissioning

Knowledge of:

- Visual inspection: spillage, draft, blocked-flue indicators
- Chimney/vent-lining issues after downsizing or removal. “Orphaned” DHW-heater back-draft hazards
- Requirement for qualified combustion specialists if any visual conditions are observed

Task 8: Identify Existing Zoning and Control Architecture

Knowledge of:

- Single- vs. multi-zone duct dampers (mechanical), Thermostatic Radio Valves (TRVs)

Task 9: Identify Distribution/Control Constraints Limiting ccASHP Feasibility

Knowledge of:

- Duct static-pressure thresholds
- Hydronic supply-water temperature limits vs. low-temp HP output curves

Task 10: Identify Tasks Needing Qualified HVAC/Duct Repair Professionals

Knowledge of:

- Out-of-scope items: heat-exchanger inspection, combustion analysis, refrigerant recovery, flue resizing, major duct reconstruction

Task 11: Summarize HVAC, Distribution, and Supplemental Heat Findings for the Design/Load Team

Knowledge of:

- Data hand-off checklist: for example, equipment BTU/h, distribution conditions and deficiencies, retention vs. removal decision
- Photo documentation standards (nameplates, system issues, vent terminations).
- Safety red flags that must be corrected before installation; referrals to qualified professionals

DOMAIN 5: BUILDING ENVELOPE 15%

Task 1: Collect Existing Documentation

Knowledge of:

- Existing information about the client during the assessment
- Existing information about the property during the assessment
- Data privacy rules when handling utility bills
- What can be asked, what shouldn't be asked, and how to do it

Task 2: Collect Measurements

Knowledge of:

- Exterior to exterior—what is and what is not part of the conditioned area (i.e., attic)
- Conditioned floor area, conditioned volume, building envelope surface area
- Buffer zones—identification and documentation requirements
- Semi-conditioned spaces—measurement parameters and impact on load calculations

Task 3: Identify Exterior Envelope Defects

Knowledge of:

- Cold-climate siding, roofing, and foundation types and their typical failure modes
- Visual indicators of cold-climate issues (ice dams, wind washing, bulk-water intrusion paths)
- Minimum clearances for outdoor ASHP units from snow drifts, vents, combustibles and local peak-snowfall considerations

Task 4: Determine Insulation R-Value

Knowledge of:

- Typical assemblies and nominal R-values and associated U factors (2×4 vs. 2×6 walls, loose-fill depth markers).
- Insulation thickness-to-R-value conversion tables (fiberglass, cellulose, spray foam [SPF] foam board)
- Code-minimum vs. pre-code benchmarks for Climate Zones (CZ) 5–8
- Buffer-zone locations and insulation–air-barrier alignment

Task 5: Assess Air Barrier and Infiltration Paths

Knowledge of:

- Common bypass locations (attic hatches, flue chases, rim joists)
- Air-barrier alignment / misalignment with the thermal barrier
- Measurements: ACH, ALA, SLA, CFM50 per square foot of surface area
- Calculations for UA of an assembly
- Air sealing priority hierarchy for retrofit screening

Task 6: Document Window and Door Specifications

Knowledge of:

- Efficiency components (U-factor, SHGC, VT)
- Typical U-factors for single vs. double vs. triple glazing and framing material
- Impact of low-E coatings and orientation on heat loss and solar gain

Task 7: Evaluate Moisture and Durability Risks

Knowledge of:

- Moisture transport mechanisms (bulk, capillary, vapor, air)
- Indicators of condensation in attics/basements, bathrooms, closets, and buffer zones. The dew point and its impact on mechanical duct work and cold surfaces
- Interaction of added insulation with vapor-retarder profiles. The difference between and location of vapor barriers and vapor retarders

Task 8: Identify Major Thermal Defects

Knowledge of:

- Thermal bridges (cantilevers, steel headers), observing additions or modifications
- Uninsulated attic kneewalls, dropped soffits, chaseways, attic and crawl space hatches
- Effect of skylights, recessed lights, and bath fans on heat loss

Task 9: Identify Envelope Upgrade Opportunities

Knowledge of:

- High-impact air-sealing, insulation, and window measures ranked by order of magnitude for reducing heating and cooling loads in cold-climate homes
- Referral criteria for a qualified professional for a detailed cost/benefit analysis

DOMAIN 6: ELECTRICAL SERVICE OVERVIEW 4%

Task 1: Locate and Label Service Entrance and Main Panel

Knowledge of:

- Meter, main connections & subpanel identification
- Typical unit wiring pathways

Task 2: Verify Electrical Service Rating

Knowledge of:

- Main breaker size as service rating proxy
- Panel assessment and dedicated breakers
- Common service sizes by home era

Task 3: Estimate Spare Capacity and Refer

Knowledge of:

- MCA reading on nameplates
- Simple referral rule: if spare amperage < equipment MCA → electrician referral
- NEC or other calculators

DOMAIN 7: EQUIPMENT COMPATIBILITY AND BASIC CONTROLS 10%

Task 1: Determine Refrigerant and Line-Set Compatibility

Knowledge of:

- Refrigerants found in today's ccASHPs (R-410A, R-32, R-454B)
- Best practices for line-set reuse, routing, and configuration
- Visual signs a line-set must be replaced (kinks, oil stains, flare/braze fittings size and locations)

Task 2: Identify Thermostat and Control Wiring Basics

Knowledge of:

- Thermostat or control type for the application
- Compatibility of an existing or new thermostat
- Preservation of existing time-of-day setback schedules
- Difference between single-stage, multi-stage, proprietary and communicating thermostats

Task 3: Explain Dual-Fuel/Supplemental Heat Integration Feasibility

Knowledge of:

- Balance-point and switchover concepts
- Capacity gap, vs. homeowner risk tolerance
- Homeowner comfort, cost and carbon preferences influencing supplemental or secondary choice

Task 4: Recognize Zoning and Supplemental Heat Controls

Knowledge of:

- Presence of zone dampers
- Dual-fuel changeover mechanisms (outdoor lock-out sensor, thermostat staging), auxiliary heat lock-out for all electric systems
- Legacy vs. inverter-HP control compatibility

Task 5: Determine Safety and Lock-Out Protections

Knowledge of:

- Basic safety devices on heat-pump systems (flammable gas sensors at the indoor coil, awareness that some jurisdictions require locking refrigerant access port caps)
- Common board or LED diagnostic indicators for lock-outs
- Referral triggers when safety or communication faults are present

DOMAIN 8: RISK COMMUNICATION AND MITIGATION 12%

Task 1: Recognize Outdoor Unit Freeze Risk Awareness

Knowledge of:

- Causes of coil or condensate freeze-up in cold climates (snow drifts, blocked air, poor drainage)
- Signs a unit is at risk (icing pattern, slow defrost, ice under pad)
- Basic homeowner actions (clear snow, maintain condensate line)

Task 2: Explain Comfort Expectations

Knowledge of:

- Typical ccASHP operation during defrost
- Impact of delivered air temperatures and airflow on perceived comfort
- The differences between supplemental, auxiliary, and emergency heat
- Best practices with regard to unit location when it comes to noise

Task 3: Identify Safety Considerations

Knowledge of:

- Carbon monoxide alarm placement and testing for dual-fuel systems and remaining fossil fuel appliances
- Slip hazards from condensate ice patches

Task 4: Determine Efficiency Factors

Knowledge of:

- Role of thermostat set-backs vs. set-it-and-forget-it
- Handling misconceptions about heat pump run times
- Awareness of cold climate definitions and impact on efficiencies
- Benefits of proper airflow and regular maintenance, effect of dirty filters and restrictions blocked registers on efficiency

Task 5: Describe Basic Mitigation Options

Knowledge of:

- Quick fixes within homeowner scope (clear snow, change filters, seal simple duct leaks)
- Low-cost add-ons (surge protector, wind baffles, snow barrier)
- Awareness of manufacturer recommended maintenance intervals

Task 6: Identify Referral Triggers

Knowledge of:

- Persistent icing despite snow clearance
- Persistent comfort complaints
- Safety alarms, electrical faults, or code violations requiring a licensed contractor

DOMAIN 9: ECONOMICS, INCENTIVES, AND CARBON IMPACTS

13%

Task 1: Explain Basic Energy-Cost Comparison

Knowledge of:

- Typical \$/kWh vs. \$/therm or \$/gallon values in cold-climate regions
- Simple annual cost estimate from name-plate kWh and heating hours
- Efficiency impacts of the ccASHP application
- Effect of heat-pump coefficient of performance (COP) on operating cost

Task 2: Identify Incentive and Rebate Programs

Knowledge of:

- Utility one-time rebates for ccASHP installs
- Federal or state tax credits
- Early retirement
- Rules for stacking multiple incentives

Task 3: Discuss Financing and Affordability Options

Knowledge of:

- On-bill repayment, low-interest energy loans, and “heat-pump as a service” plans
- Income-qualified programs that reduce upfront cost
- Typical paperwork and approval timelines

Task 4: Describe Carbon Emission Impacts

Knowledge of:

- Average carbon factor for grid electricity vs. fuel oil, propane, natural gas
- Order-of-magnitude carbon savings when switching to ccASHP
- Regional grid-cleanliness trend (renewables percentage)

Task 5: Explain Non-Energy Benefits

Knowledge of:

- Potential boost to home resale value and marketability
- Improved comfort through longer run times
- Improved indoor air quality and safety (reduced combustion appliances)

Task 6: Identify Referral Triggers for Detailed Analysis

Knowledge of:

- Payback concerns beyond quick estimate
- Complex rate structures (demand charges, time-of-use)
- Need for a full audit or utility program advisor

DOMAIN 10: HEALTH AND SAFETY 2%

Task 1: Recognize Carbon Monoxide Hazards

Knowledge of:

- Verification of CO alarms’ presence and functioning
- Ambient and personal CO monitoring

Task 2: Recognize Hazardous Material Handling Conditions

Knowledge of:

- OSHA/PPE guidelines when disturbing asbestos/vermiculite/lead, and other hazardous conditions

Task 3: Recognize Electrical Hazards

Knowledge of:

- Knob and tube wiring, open junction boxes, safe approach clearances

7. Standards of Reference

All BPI exams are based on a mixture of industry practices, axiomatic concepts, and major standards of reference. No singular source exists that could touch upon every aspect of what is considered testable. Conversely, there is no limit to the potential useful material found in print and online.

8. Exam Security

Exams are highly confidential materials. Any attempts to willfully compromise the integrity of the exam, the exam process, or the certificate process shall be taken seriously. Offenders may be prosecuted to the fullest extent of the law. In addition, any certificate credential may be revoked immediately if a breach is proven to have been made by an individual.

9. Granting

In order to receive the Cold Climate Air Source Heat Pump (ccASHP) Assessor Certificate of Knowledge, the candidate must successfully complete and pass the multiple-choice online exam.

9.1 Notification of Exam Results and Issuance of Certificate

If you successfully pass the Cold Climate Air Source Heat Pump (ccASHP) Assessor exam, the Certificate of Knowledge will be immediately available through your BPI Dashboard. You may select the Print Certificate button and save your certificate to your computer or print it.

10. Surveillance and Prerequisite Auditing Process

BPI monitors Certificate Holders to ensure ongoing compliance with the policies and procedures under which the Certificate of Knowledge was granted. A certificate may be withdrawn or revoked if the holder negligently fails to follow the certificate scheme requirements, violates the Code of Ethics, or does not take the corrective actions required by BPI.

Prerequisite Auditing Process

- Prerequisites for the ccASHP Assessor certificate are self-reported by applicants.
- BPI conducts random audits of applications to verify accuracy.
- Applicants selected for audit must provide acceptable documentation within the timeframe specified by BPI.
- Providing false or misleading information may result in revocation of the certificate and removal from the BPI ccASHP Assessor Registry.
- The BPI Registry serves as the official record of current ccASHP Assessor certificate status. Only certificates listed as active in the Registry are valid, regardless of any printed or saved copies.
- Programs and stakeholders are encouraged to verify credential status directly through the BPI Registry rather than relying on printed certificates.

11. File Review

If a complaint is received by BPI regarding a certificate holder, BPI's Certification Department will conduct a review of the certificate holder's record. The review of the certificate holder's record includes confirmation that any previous complaints have been resolved.

12. Corrective / Preventative Action

The corrective / preventative action shall include one of the following and is determined on a case-by-case basis at the discretion of BPI:

Level One: Corrective action will be given when the infraction is considered minor in nature. A written warning shall be sent to the Certificate Holder about the nature of the infraction along with the required corrective action. The written warning shall become part of the Certificate Holder's record.

Level Two: Corrective action will be given when the infraction is considered major in nature and requires proof. A written warning is sent to the Certificate Holder about the infraction. The Certificate Holder is required to submit proof, in writing, that the infraction has been corrected. The written warning and response will become part of the Certificate Holder's record.

13. Withdrawal of Certificate of Knowledge

BPI reserves the right, on a case-by-case basis, to withdraw a person's BPI Certificate(s) of Knowledge at its discretion. Reasons for withdrawal of a BPI Certificate(s) of Knowledge include, but are not limited to:

- Failure to take steps to submit the requested information of a corrective action as outlined in Section 12.
- Failure to follow BPI Standards that align with the certificate's Knowledge Areas, when applicable.
- Inaccurate or inadequate prerequisite information provided during an audit.

In the event that the BPI Cold Climate Air Source Heat Pump Assessor Certificate of Knowledge is withdrawn; the BPI Manager of Client Relations will review the Certificate Holder's record and send confirmation of the withdrawal within 30 days and provide a written statement in regard to steps that must be taken if the candidate requests the certificate of knowledge be reinstated. The candidate will be removed from the ccASHP Assessor Registry.

Use of the BPI logo or brand and representation of holding the BPI Cold Climate Air Source Heat Pump Assessor Certificate of Knowledge must cease immediately if a certificate is withdrawn or revoked.

14. Complaints

BPI recognizes that there are two main types of complaints that may be brought to its attention:

- Complaints regarding BPI and/or its related vendor organization (administrative, testing, Test Center, proctor, etc.)
- Complaints regarding BPI Certified Professionals or BPI Certificate Holders or organizations with BPI Certified Professionals or BPI Certificate Holders on staff

Complaints Process

To file a complaint, the individual must follow the procedures, below:

1. Individuals who wish to file a complaint pertaining to any aspect of the certificate of knowledge or testing process, work performed by other BPI Certified Professionals or BPI Certificate Holders, or any other BPI related concerns, please follow the procedures below:
 - a. Submit the Complaint Form via the [BPI website](#)
Go to www.bpi.org and hover over **About Us** at the top of the page, select **Contact Us**. Enter your information and choose **Complaint Form** from the **Category** dropdown box.
 - b. Send a letter via registered mail to
Building Performance Institute, Inc.
Attn: Complaints
63 Putnam Street, Suite 202
Saratoga Springs, NY 12866
 - c. Send an email to Complaints@bpi.org

2. The request for review must provide specific details for the complaint and any type of documented information that pertains to the situation.
3. The review will be carried out on a case-by-case basis by the Quality Assurance (QA) Department. Review results will be forwarded to the Director, who will provide the decision to the complainant, via email, within 30 to 40 days of receiving the complaint.

15. Secondary and Tertiary Appeal Procedures

If BPI receives an appeal to any decision it has made, including a decision on the certificate of knowledge (suspension or otherwise), a resolution for any complaint, or the outcome of a secondary appeal, the person shall be instructed to submit the appeal by the following procedure.

**Note: Any staff member that may have worked on the decision-making process for an initial complaint or appeal will not be involved in the decision-making process for any follow-up appeal. Also, appeals cannot be made against any online multiple-choice exam results.*

1. An appeal must be made within thirty (30) days from the date that the initial outcome of the original complaint or appeal occurred. The request for review may be made in the following manner:
 - a. Submit the Complaint Form via the [BPI website](#)
Go to www.bpi.org and select **About Us** at the top of the page, then **Contact Us**. Enter your information and choose **Complaint Form** from the **Category** dropdown box.
 - b. Send a letter via registered mail to
Building Performance Institute, Inc.
Attn: Complaints
63 Putnam Street, Suite 202
Saratoga Springs, NY 12866
 - c. Send an email to Complaints@bpi.org
2. The request for review must provide specific details for the appeal and any type of documented information that pertains to the situation.
3. The review will be carried out on a case-by-case basis by the Compliance Department. Review results will be forwarded to the appropriate BPI staff, who will provide the decision to the complainant, via email, within 30 to 40 days of receiving the complaint.
4. Decisions made about a tertiary appeal are final.

16. Comments

Submit any comments regarding the certificate exams or processes to Certification@bpi.org.

Appendix A – Code of Conduct

1. Code of Conduct

Certificate may be denied, suspended, or revoked if an individual is not in compliance with this Code of Conduct. Grounds for disciplinary action include (but are not limited to):

1. An irregular event in connection with an exam, including (but not limited to) copying exam materials, causing a disruption in the testing area, and failure to abide by reasonable exam administration rules;
2. Taking the exam for any purpose other than earning a certificate in the technical area referenced in the title of the exam;
3. Disclosing, publishing, reproducing, summarizing, paraphrasing, or transmitting any portion of the exam in any form or by any means, verbal, written, electronic or mechanical, without the prior expressed written permission;
4. Providing fraudulent or misleading information;
5. Failure to pay fees when due;
6. Unauthorized possession or misuse of certifications;
7. Misrepresentation of certification status;
8. Failure to provide requested information in a timely manner;
9. Impairment of professional performance because of habitual use of alcohol, drugs, or other substance, or any physical or mental condition;
10. Gross or repeated negligence or malpractice in professional work;
11. Failure to maintain a current professional credential as required by the jurisdiction in which the individual practices (this may include a license, certificate, or registration);
12. The conviction of, plea of guilty to, or plea to a felony or misdemeanor related to public safety or the building industry;
13. Disciplinary action by a licensing board related to a building industry; and
14. Other failure to maintain continuous compliance with the certification standards, policies, and procedures related to your certification.

2. Disciplinary Actions

The following disciplinary actions may be taken as a result of non-compliance with this Code of Conduct:

- Denial or suspension of eligibility;
- Denial of certificate;
- Revocation of certificate;
- Suspension of certificate;
- Reprimand; or
- Other corrective action.

Appendix B – Code of Ethics

The Building Performance Institute, Inc. (BPI) is committed to promoting the highest level of professionalism, integrity, and ability available in the residential contracting certification industry. By obtaining the Cold Climate Air Source Heat Pump (ccASHP) Assessor certificate, you are agreeing to the terms and conditions of BPI's Code of Ethics.

This Code of Ethics for Cold Climate Air Source Heat Pump (ccASHP) Assessor is designed to foster trust and mutual respect among individuals working in the industry as well as the public at large; it is intended to increase the esteem of the credentials and of the individuals who have earned them. This Code does not discourage healthy competition within the industry. BPI considers industry relationships critical to the industry's success. This Code is also not intended to limit the ability of Cold Climate Air Source Heat Pump (ccASHP) Assessors to earn fair compensation for their services. BPI's goal is to promote the professionalism of Cold Climate Air Source Heat Pump (ccASHP) Assessors work products and thereby to enhance their quality.

I. Avoiding Conflicts of Interest

A. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall not participate in professional activities involving a conflict of interest. A conflict of interest occurs when a Cold Climate Air Source Heat Pump (ccASHP) Assessor is inappropriately motivated by any financial, personal, or professional purpose other than the fulfillment of work orders. Work order fulfillment means the delivery of paid professional services, as specified, that skillfully, completely, and usefully meet the client's or employer's stated needs and desires, in compliance with all applicable codes, regulations, and standards.

B. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall avoid, whenever possible, even the appearance of a conflict of interest and shall disclose all potentially questionable associations and relationships in advance to any stakeholder with a legitimate right to be informed of them.

C. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall not accept any form of compensation for recommending products or services to clients or other parties.

D. When asked for professional recommendations, Cold Climate Air Source Heat Pump (ccASHP) Assessor shall direct the client to the official sources for up-to-date lists of Certified Professionals and accredited contracting companies before making any personal referrals. Personal referrals and recommendations are acceptable provided that they do not violate any article within this Code of Ethics.

II. Professionalism and Integrity

A. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall comply with all safety-related regulations, warnings, and instructions set forth by local, state, or federal organizations and other recognized safety organizations.

B. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall report to all appropriate parties any safety and security concerns directly related to any work performed by any previous or other current contractors or employees. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall report any additional safety and security concerns to the client.

C. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall perform work based on best practices and standards in the field, using diagnostics, testing and visual inspection within their areas of education, training, and expertise.

D. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall provide professional services that effectively guide their clients to reduce energy consumption, improve health and safety, and increase the lifespan of the building while also improving the quality of life and comfort for building occupants.

III. Representation of the Cold Climate Air Source Heat Pump (ccASHP) Assessor and Self-Representation

A. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall neither misrepresent nor knowingly deceive others concerning their experience and capabilities.

B. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall neither misrepresent nor misuse their certification.

C. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall not engage in any conduct that is detrimental to the reputation or the best interests of the Cold Climate Air Source Heat Pump (ccASHP) Assessor Certificate, the profession, or the industry as a whole.

D. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall act professionally at all times and in the best interests of the client and employer. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall not act in any way that denies or impedes competent, timely, and professional service to the client or employer.

E. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall not willfully damage, or by negligence or indifference allow to be damaged, any property belonging to clients or employers. Cold Climate Air Source Heat Pump (ccASHP) Assessors shall take reasonable means to protect the owner's health, safety, property, and possessions and also to prevent the undue loss, theft, waste, and dissipation of the owner's funds, resources, and supplies.

F. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall not betray the trust that property owners and employers have placed in them by inviting them to work in their homes and businesses.

G. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall ensure that any individuals working under their supervision will act in a professional manner, in compliance with all applicable laws, regulations, and standards, and in compliance with all articles specified by this Code of Ethics.

IV. Maintaining Confidentiality

A. Cold Climate Air Source Heat Pump (ccASHP) Assessor shall not discuss or disclose to third parties any confidential information about properties, employers, and clients, unless required by court order to do so. Confidential information is defined here as names, addresses, phone numbers, financial data, personal details, vulnerabilities, defects, measurements, diagrams, blueprints, photographs, recordings, electronic versions, and other descriptions or representations that only the employers or clients have a right and a need to know about and disseminate.

B. Cold Climate Air Source Heat Pump (ccASHP) Assessor must not, without permission, disclose private, confidential information about any client or employer for the use or interests of any third parties whose services and opinions have not been explicitly requested by the client or employer. Cold Climate Air Source Heat Pump (ccASHP) Assessor may discreetly discuss their own work and working conditions with their family and associates, but not in any way that violates the privacy of the employers, clients, and relevant family members.

V. Disciplinary Actions and Appeal

A. Violation of any article of this Code of Ethics could result in disciplinary actions including the revocation of the Cold Climate Air Source Heat Pump (ccASHP) Assessor certificate.

B. Cold Climate Air Source Heat Pump (ccASHP) Assessor have the right to appeal any disciplinary decisions to the certifying body.

Terms and Definitions

BPI National Standards – The set of technical protocols and procedures that have been developed through an open, transparent, consensus-based process and are intended to achieve a high quality of residential building performance. BPI is approved by the American National Standards Institute, Inc. (ANSI) as an accredited developer of American National Standards.

Candidate – Applicant who has fulfilled specified prerequisites, allowing his/her participation in the certification process.

Certificate Process – All activities by which a certification body establishes that a person fulfills specified competence requirements, including application, evaluation, decision on certificates, surveillance, and use of certificates and logos/marks.

Certificate Scheme – Specific certificate requirements related to specified categories of persons to which the same particular standards and rules, and the same procedures apply.

Certificate System – Set of procedures and resources for carrying out the certificate process as per a certificate scheme, leading to the issuance of a certificate of competence, including maintenance.

Competence – Demonstrated ability to apply knowledge and/or skills and, where relevant, demonstrated personal attributes, as defined in the certificate scheme.

Complaint – Conformity assessment request, by any organization or individual to a certification body, for corrective action relating to the activities of that body or to those of any of its customers.

Evaluation – Process that assesses a person's fulfillment of the requirements of the scheme, leading to a decision on certificate.

Exam – Mechanism that is part of the evaluation, which measures a candidate's competence by one or more means such as online, oral, practical and observational.

Qualification – Demonstration of personal attributes, education, training and/or work experience.

Quality Assurance – The observation techniques and activities used externally by an organization to evaluate the effectiveness of their quality management system and to provide feedback that may result in quality improvements.

Scheme Committee – Group of people chosen by the certification body to provide input, recommendations, guidance, and review of a certificate scheme.