

VT TEC Manual—Section 10: Quality Control Inspections

Eligibility for Performing Quality Control Inspections:

The table below outlines the professional credentials that must be attained in order to perform quality control inspections on weatherization projects. In addition, the table identifies which roles can and cannot be performed in addition to the final inspection duties on individual projects.

	Professional credentials required to perform final inspection duties		Identifying when it is allowable for a QCI certified individual to perform multiple weatherization duties		
	BPI QCI credential is required	Successful completion of a Tier-1 Accredited Multi Family QCI Course is required	A certified energy auditor can perform final inspection on a job where they also performed the energy audit	A certified production or operations manager who also supervises weatherization crew workers can perform the final inspection	A certified crew person can perform the final inspection <u>if</u> they did not perform any other work on that specific WAP job
Building size					
1 - 4 units	Yes	No	Yes	No	Yes
5 (+) units	Yes	Yes	Yes	Yes	Yes

Requirements for Every Quality Control Inspection:

The table below outlines required responsibilities of a certified quality control inspector by work category.

Review	Visual Inspection	Photographic Documentation	Testing
Client Job File	Attics	A sampling of photos of the installed measures is required. A joint effort between the crew and the inspector is often needed. It is strongly recommended that photos of attic airsealing work be taken prior to covering it up with insulation.	Exhaust Fan Flow
HES Energy Audit	Kneewalls		Combustion Testing
Scope of Work	Basements/Crawlspaces		W.C.D. Testing
Bids/procurement for any subcontracted work exceeding \$1,500	Interior of Home	Photos of the finished work must be taken prior to permanently sealing off any area and rendering it non-accessible (ex. kneewall closets or attics)	Blower Door assisted smoke testing at attached/tuck under garages
Results of combustion testing performed by WAP agency <u>and</u> subcontractors	Exterior of Home		Blower Door assisted smoke testing to attics/through top of building surfaces
Worst case draft testing by auditor <u>and</u> by crew	Combustion Appliances		
Results of short cycling test <u>and</u> heat rise test whenever there is a furnace	Ductwork		Verify all physically accessible return ducts are free of air leaks



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Software Integration within the QCI Process:

Data Entry Requirements

There are data entry steps that must be performed before it is allowable to report a weatherization project as complete. The table below identifies the required data entry steps.

HES Screen Title	Required Action	Comments
Air Infiltration	Enter the actual tested post-Wx blower door reading	Required in order to calculate the final Energy Savings Report based on actual results
Combustion Test	Enter actual test readings for heating and domestic water heating combustion appliances	Required in order to document the final combustion test results in the software
CO Test	Enter post-Wx CO test results for cooking appliances	Required only in cases where pre-Wx test results were outside acceptable ranges and/or where work was performed on the cooking appliance during project
Installation & Inspection	Enter the actual installed & inspected measure quantities for each measure to ensure they match the actual work that was performed on the project with reference to the appropriate units (for example sq. ft. vs. each vs. lin. ft.)	Whenever a measure was on the work scope and then it was not installed and/or there are no transactions that can be associated to the measure then it must be reset to an installed/inspected measure quantity of zero prior to running the final Energy Savings report that is based on actual work performed
Inspection	Indicate each installed measure, and the job as a whole, has passed final inspection	This action in the software must wait until all measures performed, and the job as a whole, has been passed by the certified QCI
Energy Savings	Generate the final Energy Savings report based on actual work performed	This generates the final energy savings report which recalculates the project economics (SIRs) based on actual installations and transactions entered for each job



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Software Integration within the QCI Process:

The HES “WAP Documents” Screen

There are a total of 17 line items on the HES screen titled “WAP Documents” where project information is uploaded and retained. The table below identifies which documents are required for every project file and those that are sometimes required dependent on project specific conditions.

	WAP Document Title	Every File	When Applicable
		Upload is required for every project	Upload is sometimes required dependent on the project specific conditions
1	Receipt of Lead Pamphlet	Yes - Always Required	
2	Client Rights & Expectations	Yes - Always Required	
3	Mold & Moisture Form		Yes – When Applicable
4	Energy Audit Project Photos (consolidated as single .pdf)	Yes - Always Required	
5	All Worst Case Draft Test Forms (Appendix C of TEC Manual)	Yes - Always Required	
6	All Red Calcs Tool Calculations	Yes - Always Required	
7	All Waivers (ventless heater, earthen floor, etc.)		Yes – When Applicable
8	Hazard Assessment and/or Deferral of Services Forms	Yes - Always Required	
9	2014 Weatherization Residential Audit Form or 2014 Mobile Home Audit Form	Yes - Always Required	
10	MF - 5 (+) Units - Upload from BEAST file		Yes – When Applicable
11	Add-On Program Docs, Efficiency Coach Forms (and VGS docs if applicable)	Yes - Always Required	
12	Transmittal Approval Form (upload DAACC file here if it’s also a transmittal approval)		Yes – When Applicable
13	Atypical Project Approval Form		Yes – When Applicable
14	Crew & QCI Photos - During and After Project Photos (consolidated as single .pdf)	Yes - Always Required	
15	Miscellaneous Document Uploads 1		Yes – When Applicable
16	Miscellaneous Document Uploads 2		
17	Miscellaneous Document Uploads 3		



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Software Integration within the QCI Process:

The HES “WAP Documents” Screen *(continued from last page)*

Below is additional information about required items to upload to the HES WAP Documents screen.

Every File		When Applicable	
The additional items identified below need to be uploaded into one of the existing 17 WAP Document locations for every project		The additional items identified below need to be uploaded into one of the existing 17 WAP Document locations whenever project specific conditions make it applicable to the job	
1	A Fully Signed QCI Form <i>-Signed by the Client, the Certified Inspector & the Weatherization Program Director*-</i>	1	All of the additional forms and record keeping required when lead safe weatherization practices are used
2	Record keeping related to all subcontracted work performed on the job (invoices from subs, procurement efforts made, etc.)	2	All required vermiculite documentation and record keeping
3		3	All required confined spaces documentation and record keeping

***It is not allowable practice for an alternate member of the local WAP team to sign on behalf of the Certified Inspector or sign on behalf of the Weatherization Program Director without prior written approval by OEO.**

Required Information to Provide WAP Clients:

Prior to reporting a successfully completed weatherization project, the following deliverables must be provided to the client.

Required Deliverable		Comments
1	Weatherization Project Label	The recommended placement for these “stickers” is on the cover of the electrical panel
2	A Partially Signed QCI Form <i>-Signed by both the Client & the Certified Inspector-</i>	The button in the HES program that produces the required report to use for each job is titled “Entire Agency QC Form”
3	Installed Materials Receipt	This receipt is required in order to comply with CFR 460.17 & the Federal SWS The information required for these reports was incorporated into a HES report in 2016. Delivery of this HES report to every client has been a Vermont WAP requirement since 10-01-2016

It’s difficult to have 100 % of the information needed to provide complete versions of all three of these deliverables to the client during the in-person final inspection. Mailing and/or emailing these deliverables to clients is acceptable practice.



VT TEC Manual—Appendix O: Quality Control Inspections

Performing Successful Quality Control Inspections & Closing Out Weatherization Projects:

Weatherization projects can only be reported as completed to OEO after a quality control inspection has been performed by a certified inspector that includes all required testing procedures and when all measures for the job have been passed by the certified inspector.

Extenuating Circumstances:

Unsuccessful Attempts to Schedule or Perform Inspection

If attempts to perform an inspection are seemingly not possible, written permission from OEO must be attained in order to report a project as completed and close it out. It is not allowable to report a completed project without performing a thorough final inspection unless written permission to do so is attained by the OEO office.

If a client is non-responsive to phone or email communications the local provider must send a written letter to the client outlining the importance of the inspection.

It is recommended that phone calls to the client be attempted at different times of the day and that any program staff that will be working in the area visit the home in attempt to make contact with the client and enable the in-person final inspection.

A contacts log demonstrating diligent attempts to complete final inspection is to be retained in the client file.

Once informed of difficulties in connecting with a client, OEO staff will work to support local providers and make additional attempts to communicate with the client in order to enable the final inspection to occur. OEO staff will also maintain a contacts log.

If after working together, the local and OEO offices are unsuccessful in performing a final inspection, OEO will communicate permission to close out the project in writing.

The contacts logs and written permission to close out the project must be retained in the client file by uploading into the WAP documents section of the HES system.

Partial Inspection Performed

If there is no fuel and it is needed in order to perform a complete quality control inspection then fuel can be provided by WAP when it represents the only way to get a combustion appliance operational for testing and evaluation purposes.

Written permission from OEO must be attained in order to report a project as completed and close it out in cases where only a partial inspection has been performed.

This documentation must be retained in the client file by uploading into the WAP documents section of the HES system.

