

VT TEC Manual—Appendix O: 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 QCI certified individuals to perform multiple weatherization duties		
	BPI QCI certification 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 supervises weatherization crew workers can perform the final inspection	A certified crew person can perform the final inspection if they did not perform any other work on that specific job
Building size					
1 - 4 units	Yes	No	Yes	No	Yes
5 (+) units	Yes	Yes	Yes	No	Yes

Requirements for Every Quality Control Inspection:

The table below outlines primary responsibilities of a certified quality control inspector, grouped into the following four categories: Review, Visual Inspection, Photographic Documentation and Testing.

Review	Visual Inspection	Photographic Documentation	Testing
Client Job File	Attics	A sampling of photos of the installed measures is required.	Exhaust Fan Flow
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	A joint effort between the crew and the inspector is often needed.	Blower Door assisted smoke testing to attics/through top of building surfaces
Results of combustion testing performed by WAP agency and subcontractors	Exterior of Home	It is highly recommended that photos of attic airsealing work be taken prior to covering it up with insulation.	Blower Door assisted smoke testing at attached/tuck under garages
Worst case draft testing by auditor and by crew	Combustion Appliances		Short cycling and heat rise test w/furnace
Results of short cycling test and heat rise test when there is a furnace	Ductwork	Photos of the finished work must be taken prior to permanently sealing off an area and rendering it non-accessible (ex. kneewall closets or attics)	Verify physically accessible return ducts are free of air leaks



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Software Integration within the QCI Process:

Data Entry Requirements

There are a number of data entry steps that must be performed prior to reporting a successfully completed weatherization project. The table below identifies the screens where actions are required prior to completing a project with comments about the actions to take.

HES Screen Title	Action	Comments
Air Infiltration	Enter actual tested post-Wx blower door reading	Required in order to calculate the final Energy Savings Report based on actuals
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 in cases where pre-Wx test results were outside acceptable ranges and/or work was performed on the cooking appliance during project
Installation & Inspection	Enter the installed and inspected quantities for each measure to ensure they match the actual work that was performed on the project with reference to the appropriate units (example sq. ft. v. each v. lin. ft.)	If 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 needs to be reset to installed/inspected 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 inspector
Energy Savings	Run final Energy Savings report based on actual work performed	This runs the final energy savings report which recalculates the project economics based on actual installations and transactions entered for each job



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Software Integration within the QCI Process:

The “WAP Documents” Section

There are a total of 14 line items in the section of the software 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 dependant upon project specific conditions.

		Every File	It Depends
WAP Document Title		Upload is required for each project	Upload is sometimes required dependent on the project specific conditions
1	Receipt of Lead Pamphlet	Yes	No
2	Client Rights & Expectations	Yes	No
3	Mold & Moisture Form	No	Yes
4	Energy Audit Project Photos (consolidated as .pdf)	Yes	No
5	Worst Case Draft Test Forms	Yes	No
6	Ventless Heater Waiver	No	Yes
7	Vapor Barrier over Earthen Floor Waiver	No	Yes
8	Hazard Assessment and/or Deferral of Services Form	Yes	No
9	MF – 5 (+) Units VFEP Costs and Savings Summary Report	No	Yes
10	Residential Audit Intake Form or Mobile Home Audit Intake Form	Yes	No
11	Add-On Program Forms, Efficiency Coach Forms	Yes	No
12	Transmittal Approval Form	No	Yes
13	Crew & QCI: During and After Project Photos (consolidated as .pdf)	Yes	No
14	Miscellaneous Document Uploads	Yes	No

Additional Items for Upload

Every File		It Depends	
The additional items identified below need to be uploaded into one of the existing 14 WAP Document locations		The additional items identified below need to be uploaded into one of the existing 14 WAP Document locations whenever project specific conditions make it applicable to the job	
1	Red Calcs Tool	1	All of the additional forms and record keeping required when lead safe weatherization practices are used.
2	Fully signed “Entire Agency QC Form”	2	All required vermiculite documentation and record keeping
3	---	3	Atypical Project Request Form



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Project Records to Provide Client:

Prior to reporting a successfully completed weatherization project the following deliverables must be provided to the client. It will likely be difficult to have 100 % of the information necessary to produce completed versions of each of these items on the day the final inspection occurs. Mailing and/or emailing these deliverables to clients is acceptable practice.

Required Deliverable		Comments
1	Weatherization Project Label	The recommended placement for these stickers is on the cover of the electrical panel
2	Fully signed QCI Form	The button in the HES system that accesses the 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 SWS The information will be generated from and display in a new report from the HES system. Use of this new report will become a requirement for each project effective 10-01-2016



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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 scheduling of the 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 inspection to occur. OEO staff will also maintain a contacts log.

If after working together, the local and OEO offices are unsuccessful in performing 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.

