

Administrator:
QA Residential Inspection Checklist



Category	Inspection Category	Measure	Question ID	Task Requirement	Deficiency Category	Canned Failure Description	Pass Summary	Conditional Pass Summary	Fail Summary
Assessment Quality	Assessment Quality	Data Collection	Q00000002	Energy Action Plan Completed	Incidental		N/A for HPwES. EmPower Action Plan completed by customer; customer can identify actions they have completed or will be completing		EmPower only, action plan was not completed
Assessment Quality	Assessment Quality	Data Collection	Q00000003	Building Specifications Depicted Accurately	Major		Measurements provided by contractor for heat loss and savings calculations, building components, etc. are accurate		
Assessment Quality	Assessment Quality	Data Collection	Q00000004	Ventilation Requirement Calculation Correct	Minor		Where ventilation is required the auditor and inspector should arrive at same ventilation requirement		
Assessment Quality	Assessment Quality	Data Collection	Q00000005	Preexisting Conditions Accurately Depicted	Major		The pre-existing conditions as recorded by the contractor must match site conditions as they exist		
Assessment Quality	Assessment Quality	Data Collection	Q00000006	Heating System Accurately Depicted	Major		Nameplate efficiency and age of unit matches contractor's documented numbers		
Assessment Quality	Assessment Quality	Data Collection	Q00000007	Blower Door Test Results Submitted	Major		Blower door test-in and test-out results were submitted	Pre-existing conditions exist which preclude use of blower door (such as ALM) that are noted by contractor and verified by inspector	Blower door test-in and/or test-out results were not submitted by the contractor.
Assessment Quality	Assessment Quality	Data Collection	Q00000008	Comprehensive Audit Submitted	Incidental		Customer received the audit report and felt it was it was adequately explained to them by the contractor		
Assessment Quality	Assessment Quality	Data Collection	Q00000009	Customer Signature Verified	Major		Customer signatures provided by contractor are authentic		Customer is 100% certain they did not sign document.
Assessment Quality	Assessment Quality	Data Collection	Q00000658	Contracted Costs Verified	Major		N/A for EmPower - Confirm with the customer that the contracted costs for each measure are accurate and do not include work performed for measures not listed. For Assisted and Coordinated projects, verify that the customer incurred out of pocket expenses (unless there was a loan).		
Assessment Quality	Assessment Quality	Data Collection	Q00000669	Comprehensive Home Assessment	Incidental		N/A for EmPower. Verify with the customer that they received the Comprehensive Home Assessment report PRIOR to contracting.		
Assessment Quality	Assessment Quality	Data Collection	Q00000670	So What's Next Brochure Received	Incidental		N/A for EmPower. Verify with the customer they received the "So What's Next Brochure" brochure		
Assessment Quality	Assessment Quality	Data Collection	Q00000671	Customer Verification of Work Completed	Incidental		N/A for EmPower. Ask the customer who completed the project measures. If the contractor is different than what is listed on the submitted project documents, rate task a fail.		
Assessment Quality	Assessment Quality	Data Collection	Q00000684	Combustion Safety Testing Results Submitted	Major		Testing results must be complete and submitted to the program	Testing results are partially complete	No combustion safety testing results were submitted
Assessment Quality	Assessment Quality	Data Collection	Q00000324	Coordinated Project - No Out Of Pocket Option Offered	Incidental		Contractors must offer a No Out of Pocket "Empower Only" option for AHP-Empower combined projects. Only score if customer is certain the contractor did or did not offer an EmPower only option		
Assessment Quality	Assessment Quality	Recommendations	Q00000609	Smoke Detector	Incidental			In rental properties, the landlord/property owner are required to provide smoke detectors in most jurisdictions. Add inspector notes indicating landlord has not provided smoke detector(s).	
Assessment Quality	Assessment Quality	Recommendations	Q00000711	CO Detector	Critical	There is no carbon monoxide detector in home. At least one CO detector meeting UL-2034 requirements shall be installed according to manufacturer's instructions in every home with an attached garage and/or combustion appliances. It is recommended that additional CO detectors are installed, as needed, to provide a separate detector for each floor of the building	At least one CO detector meeting UL-2034 requirements shall be installed according to manufacturer's instructions in every home with an attached garage and/or combustion appliances.	In rental properties, the landlord/property owner are required to provide CO detectors in most jurisdictions. Add inspector notes indicating landlord has not provided CO detector(s).	All dwellings with combustion appliances or an attached garage are required to have a CO detector. Both programs require all battery-only-powered carbon monoxide (CO) detectors have non-replaceable, non-removable batteries, capable of powering the devices for a minimum of ten years.
Assessment Quality	Assessment Quality	Recommendations	Q00000010	Air Sealing	Incidental		If reduction is available and there are no unresolved roadblocks, air sealing should have been recommended. Air sealing opportunities must always follow the pressure envelope. Lack of air sealing between a semi-conditioned basement and upstairs should not be considered a "missed opportunity" unless the leak extends beyond the conditioned space such as basement to attic bypasses.		

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Assessment Quality	Assessment Quality	Recommendations	Q00000011	Insulation	Incidental		If insulation is cost-effective and there are no roadblocks preventing upgrades insulation should have been recommended		
Assessment Quality	Assessment Quality	Recommendations	Q00000012	Insulation Voids Identified	Incidental		Voids in insulation must be accounted for by determining the net square footage of uninsulated area and recording it as a separate component of the building		
Assessment Quality	Assessment Quality	Recommendations	Q00000013	Domestic Hot Water	Incidental		If the existing system is in poor condition or is an electric tank that could have advanced controls installed, upgrades should have been recommended	EmPower projects - pass if EmPCalc was used	
Assessment Quality	Assessment Quality	Recommendations	Q00000014	Heating System(s)	Incidental		If existing system is in poor condition, improperly sized or creating a health risk, replacement should have been recommended	EmPower projects - pass if EmPCalc was used	
Assessment Quality	Assessment Quality	Recommendations	Q00000015	Windows and Doors	Incidental		Windows and doors should be evaluated for performance, operation, and air sealing, resulting in appropriate recommendations	EmPower projects - pass if EmPCalc was used	
Assessment Quality	Assessment Quality	Recommendations	Q00000016	Appliances	Incidental		If existing refrigerator or freezer was manufactured prior to 2000 or other major appliances (dw, washing machine, dehumidifier etc.) are not ENERGY STAR®, upgrades to ENERGY STAR® models should have been recommended	EmPower projects - pass if EmPCalc was used	
Assessment Quality	Assessment Quality	Recommendations	Q00000017	Direct Install Measures	Incidental		Covers CFLs, LEDs, light fixtures, aerators, showerheads, CO and smoke detectors, tank wrap, pipe insulation, programmable thermostats, window insulation, and DHW temp setback. If existing conditions meet eligibility requirements for replacement, replacements should have been recommended or installed	EmPower projects - pass if EmPCalc was used	
Assessment Quality	Assessment Quality	Recommendations	Q00000018	Distribution Systems: Ducts	Incidental		If duct system leakage exceeds 10% of the nominal air flow of the system and the ducts are located in an unconditioned space or semi-conditioned space (unvented and adjoined to the tempered earth) then duct sealing should have been recommended. If the ducts are not insulated to current code levels duct insulation should have been recommended	EmPower projects - pass if EmPCalc was used	
Assessment Quality	Assessment Quality	Recommendations	Q00000019	Distribution Systems: Hydronic	Incidental	Missed opportunity to recommend insulating heating supply pipes in unconditioned space per BPI Heating Standards.	Hydronic heating system pipes in unconditioned spaces that are not insulated should have had pipe insulation specified unless this could cause water pipes to freeze	EmPower projects - pass if EmPCalc was used	
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000313	Gas Leak Testing - Pre-Existing Lines	Minor	[Enter number of gas leaks] gas leaks were detected and confirmed with soap solution. The gas leaks were marked with red tags. Photo documentation of the permanent repairs made do not need to be submitted. However, NYSERDA reserves the right to verify repairs were made through a future site-visit and/or conversation with the customer.	Indoor ambient air sampled at each floor of the home with a Combustion Gas Detector has a LEL of 0% (MIG 2.10)		Indoor ambient air LEL measurements above 0%, gas leak testing performed on all gas lines and combustion appliances per ANSI/BPI-1200-S-2017 Section 7.5. All leaks shall be tagged and photo documented.
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000314	Gas Leak Testing - Contractor Installed Lines	Major	[Enter number of gas leaks] gas leaks were detected and confirmed with soap solution. The gas leaks were marked with red tags. Photo documentation of the permanent repairs made do not need to be submitted. However, NYSERDA reserves the right to verify repairs were made through a future site-visit and/or conversation with the customer.	Gas leak testing performed on all gas lines and combustion appliances (existing and new) per ANSI/BPI-1200-S-2017 Section 7.5, no gas leaks identified. (MIG 2.10)		Gas leak testing performed on all gas lines and combustion appliances (existing and new) per ANSI/BPI-1200-S-2017 Section 7.5. All gas leaks shall be tagged and photo documented.
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000315	Correctly Measured CAZ(s) De-pressurization	Major	Worst-case CAZ depressurization limits were exceeded during testing. Recorded reading was (pascal reading). BPI limit is (pascal reading). BPI Standards state: When CAZ depressurization limits are exceeded under worst-case conditions according to the CAZ Depressurization Limit table, make up air must be provided or other modifications to the building shell or exhaust appliances must be included in the work scope to bring the depressurization within acceptable limits.	CAZ passes the depressurization limit and the appliances pass spillage and draft under worst case		CAZ fails the depressurization limit, but the appliances still pass spillage and draft under worst case. Or, the CAZ fails the depressurization limit, and under natural conditions the appliances fail spillage or draft
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000316	Spillage Test Safe	Major	(Type of appliance) failed draft (actual draft reading) and/or spillage test with a CO reading of (____) ppm. (Fuel supplier name) verified the condition. The utility red tagged the unit, and left or turned the gas supply to the (home or type of appliance) on or off.		Contractor's test out data did not indicate that a backdraft was occurring under worst case conditions even though there was not unsafe levels of CO	Contractor's test out number did not indicate that spillage or back draft was occurring at worst case which is causing unsafe levels of CO.

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Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000318	Ambient CO Measurements Safe	Major			Ambient CO that exceeds 9 ppm* (OSHA 8 hour exposure limit) under non-testing conditions	Ambient CO that exceeds 35 ppm under any circumstances
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000319	Appliance CO Measurements Safe	Major	(Name of appliance(s) failed spillage () pascals at worst case depressurization with CO of () ppm. Worst case (name items that caused worst case – example, kitchen exhaust and dryer); baseline () pascals; worst case () pascals; difference () pascals. CO reading of gas oven is () ppm after 10 minutes of operation. Repair oven per BPI Standards Undiluted CO reading of (type of appliance) exceeded 400 ppm and passes spillage testing. (Fuel supplier name) verified the condition. The utility red tagged the unit, and left or turned the gas supply to the (home or type of appliance) on or off. High CO issue needs to be corrected. Undiluted CO reading of (type of appliance) exceeded 400ppm and fails spillage testing. (Fuel supplier name) verified the condition. The utility red tagged the unit, and left or turned the gas supply to the (home or type of appliance) on or off. High CO and/or spillage issues need to be corrected.	Appliance CO measurements match the Contractor's measurements and is not above 400ppm. The appliance must pass spillage under natural conditions		
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000691	Smoke Reading Acceptable	Major	Fuel oil heating unit smoke reading is () and does not meet the burner manufacturers specifications.	Smoke reading of fuel oil units within manufacturers specifications, typically be between 0-1		Smoke reading of fuel oil unit exceeds 1
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000396	Gas Line Capped	Critical	Gas line terminates and is not capped off at the end. NFPA 54 Chapter 7.7.21 states: Each outlet, including a valve, shall be closed gastight with a thread plug or cap immediately after installation and shall be left closed until the appliance or equipment is connected thereto. When an appliance or equipment is disconnected from an outlet and the outlet is not to be used again immediately, it shall be capped or plugged gastight	Each outlet, including a valve, shall be closed gastight with a thread plug or cap immediately after installation and shall be left closed until the appliance or equipment is connected		
Health & Safety	Combustion Appliance Testing	Testing Inspection	Q000000397	Oil Leakage Testing	Minor	An oil leak was found at (name location and include picture) and needs to be repaired. NFPA 31, Chapter 8.2.9, states: Piping systems shall be maintained liquid tight. A piping system that leaks shall be emptied of liquid or repaired in an approved manner.			
Health & Safety	Combustion Appliance Testing	Visual Inspection	Q000000399	Unvented Space Heater Identified	Minor	Measures were completed that may effect the air movement in the home and an unvented space heater or heaters are present in the home and the fuel line is not capped off. No measures were completed that effected air movement in the home but an unvented space heater or heaters were present in the home, the fuel line was not capped off and no recommendation to disable the appliance was documented	If measures were completed that impact air movement in the home any unvented space heaters must be disconnected and the fuel supply line capped. If no measures were completed that effect air movement in the home, but an unvented space heater exists, the contractor must make a recommendation to the homeowner to disable it.		An unvented space heater was not disabled and the fuel line was not capped off and measures were completed that effected air movement in the home. Or, no measures were completed that effect air movement in the home but an unvented space heater exists, the fuel line is not capped off and no recommendation to disable the appliance was documented.
Health & Safety	Combustion Appliance Testing	Visual Inspection	Q000000694	Attic Space Accessible	Major	Attic insulation and/or air sealing was a contracted measure and the attic access has been sealed shut. The contractor created an access to the attic that must be permanently sealed (such as access through drywall, or situations where the contractor insulates the attic through a vent) and did not submit pre and post photos of the installed insulation per Program Guidelines	Contractor must not seal off access to the attic when attic insulation and/or air sealing was a contracted measure. In the event that a contractor creates an access to the attic that must be permanently sealed (such as access through drywall, or situations where the contractor insulates the attic through a vent), the contractor must provide pre and post photos of the installed insulation and submit per Program Guidelines (MIG 3.4.1)		Attic air sealing and/or insulation was installed and the contractor sealed off an access to the attic that previously existed. If pre-existing attic access was sealed off, the QSP inspector shall cut open the seal and complete the attic inspection. The contractor did not provide pre and post photos of the installed attic measures where the contractor created an access to the attic that must be permanently sealed (such as access through drywall, or situations where the contractor insulates the attic through a vent).
Health & Safety	Combustion Appliance Testing	Visual Inspection	Q000000309	Correct Fuel Identified	Critical				
Health & Safety	Combustion Appliance Testing	Visual Inspection	Q000000310	Located All Combustion Appliance Zones	Minor		All equipment was tested and the depressurization set up accurately defined the Combustion Appliance Zone		
Health & Safety	Combustion Appliance Testing	Visual Inspection	Q000000311	Correct Venting Type Identified	Minor				
Health & Safety	Combustion Appliance Testing	Visual Inspection	Q000000312	CAZ and Appliances Related Safety Issues Identified	Major		Contractor should have identified and recommended a fix for any CAZ and Appliance related safety issues, including, detached or corroded flue pipes or problems with size or pitch, problems with DHW relief valve, broken or kinked oil lines, water leakage, open returns, no air filter, etc	The Contractor did not identify or recommended a fix for all CAZ and Appliance related safety issues	The house is in imminent danger of exploding or fire and/or the ambient CO is not elevated due to the the CAZ and/or Appliance related H&S issue not identified/fix

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Health & Safety	Health & Safety	Clean and Tune	Q00000716						
Health & Safety	Health & Safety	Roadblocks	Q00000302	Friable PACM	Major		Contractor did not depressurize home using Blower Door or conduct Air Sealing in areas containing friable PACM that was in poor condition and at risk of becoming airborne.		Contractor depressurized the home using a Blower Door and/or conducted Air Sealing in areas that contained friable PACM that was in poor condition and at risk of becoming airborne.
Health & Safety	Health & Safety	Roadblocks	Q00000303	Mold like substance - Greater Than 10 Square Feet	Major		Contractor did not depressurize home using Blower Door or conduct Air Sealing in areas containing mold like substance. The conditioned space may be depressurized if MLS is not within the conditioned space.	In situations where more than 10 sq. ft. of mold-like substance exists in the attic, contractors may proceed with measures that may impede mold growth in the attic per MIG section 2.4.2	Mold like substance exists and the contractor conducted a blower door test and/or completed air sealing in the areas containing mold like substance.
Health & Safety	Health & Safety	Roadblocks	Q00000305	Knob & Tube Wiring	Major		Knob and tube wiring has been either removed or permanently de-activated wherever insulation was completed or no insulation/air sealing materials were installed within 3 inches of active knob and tube wiring		Insulation or air sealing materials have been installed within 3 inches of active knob and tube wiring
Health & Safety	Health & Safety	Roadblocks	Q00000306	Moisture Mitigated Properly	Major		Contractor identified all sources of moisture problems, and source mitigation or necessary repairs performed		Mitigation of persistent moisture issues were not corrected. Verify with owner if moisture issues were present while the contractor was on site; if no moisture was present or they are unsure mark N/I
Health & Safety	Health & Safety	Roadblocks	Q00000559	Exhaust Fans Vented Properly	Major	Dryer and/or bathroom exhaust fan not vented properly. Vent dryer and/or bathroom exhaust fan to the outside. BPI Standards state: Clothes dryers, regardless of fuel type, and bathroom exhaust fans must be vented directly outside using appropriate duct materials (metal ducts are required for gas fueled clothes dryers) before proceeding with installation of air sealing, duct sealing, or enclosed cavity insulation measures. Exhaust ducts running through unconditioned space must be insulated and have a minimum 1/4" rise for every foot of run towards wall or roof terminations.	All exhaust fans (bath fans, kitchen fans, clothes dryers) must be vented to the outside of the structure in all cases where measures will be installed that will change the air movement in the home		All exhausts must terminate outside, fail even if not included in contract.
Health & Safety	Health & Safety	Roadblocks	Q00000713	Property Damage	Major		Mark as failed if there is clear evidence the contractor has caused significant damage to the property (holes in walls, damage to woodwork, spray foam insulation blew out a wall, etc.). In all cases, it is important to document the customer's comments in the failure description		
Work Quality	Appliances	Clothes Washer	Q00000277	Contracted Clothes Washer Unit Installed	Major		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, clothes washer was not installed.
Work Quality	Appliances	Clothes Washer	Q00000278	Installed unit is ENERGY STAR	Major				
Work Quality	Appliances	Clothes Washer	Q00000279	Hose connections - Hose connections are secure and show no signs of leaking	Incidental				
Work Quality	Appliances	Clothes Washer	Q00000280	Machine sits evenly on floor and shows no sign of rocking	Incidental				
Work Quality	Appliances	Dehumidifier	Q00000286	Contracted Dehumidifier Unit Installed	Major		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, no dehumidifier was installed.
Work Quality	Appliances	Dehumidifier	Q00000287	Installed Unit Is ENERGY STAR	Major				
Work Quality	Appliances	Dishwasher	Q00000288	Contracted Dishwasher Unit Installed	Major		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, dishwasher was not installed.
Work Quality	Appliances	Dishwasher	Q00000289	Installed Unit Is ENERGY STAR	Major				
Work Quality	Appliances	Dryer	Q00000281	Moisture Sensor Control	Major		A moisture sensor control is present		
Work Quality	Appliances	Dryer	Q00000282	Vent Installation Acceptable	Major		Dryer vents must be installed in a manner that allows air to flow freely through it.		The installed vent has one or more issues that will restrict proper airflow. Tears, crushed material, sharp bends, unusually long vent runs, etc
Work Quality	Appliances	Dryer	Q00000283	Code-Compliant Vent	Major		Solid vent pipe with minimal flexible metal were installed		Vinyl (including foil faced flex vents were used on gas fired dryers
Work Quality	Appliances	Dryer	Q00000284	Passes CAZ and CO Testing	Major		Dryer location max depressurization is -15 and CO levels are acceptable		

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Work Quality	Appliances	Dryer	Q000000285	Contracted Dryer Unit Installed	Major		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, no dryer was installed.
Work Quality	Appliances	Fridge and Freezer	Q000000292	Contracted Fridge or Freezer Unit Installed	Major		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, refrigerator or freezer unit not installed. Mark as N/I and add inspector note indicating deficiency, unless the unit was to be provided directly by the contractor (typically a WAP agency) and not the NYSERDA appliance vendor.
Work Quality	Appliances	Fridge and Freezer	Q000000293	Installed Unit Is ENERGY STAR	Major				
Work Quality	Appliances	Room A/C	Q000000274	Contracted AC Unit Installed	Major		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, clothes washer was not installed.
Work Quality	Appliances	Room A/C	Q000000275	Installed Unit Is ENERGY STAR	Major				
Work Quality	Appliances	Room A/C	Q000000276	Unit Installed Securely	Minor		Unit is secured in the window according to manufacturer's installation specifications		
Work Quality	Appliances	Timers for Appliances	Q000000290	Contracted Timer(s) Installed	Major		Timers should have been installed on appliances that the home owner indicated stayed on even when no one was using them. (TV, computer, DVD player)		
Work Quality	Appliances	Timers for Appliances	Q000000291	Make and Model Number Match Contractor Invoice	Minor		The make and model number of the installed equipment match the approved contract		
Work Quality	Direct Install Measures	Bathroom Faucet Aerator	Q000000030	Meets Program Requirements	Minor		Installed aerator has the required gpm		
Work Quality	Direct Install Measures	Bathroom Faucet Aerator	Q000000031	Aerator Is Leak Free	Incidental				
Work Quality	Direct Install Measures	Bathroom Faucet Aerator	Q000000032	Aerator Finish is Unmarked	Incidental				
Work Quality	Direct Install Measures	Bathroom Faucet Aerator	Q000000033	Teflon Tape Neatly Installed	Incidental				
Work Quality	Direct Install Measures	Bathroom Faucet Aerator	Q000000034	Water Stream Straight	Incidental				
Work Quality	Direct Install Measures	Bathroom Faucet Aerator	Q000000035	Correct Quantity Installed	Major		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	CFL's	Q000000049	Installed Location is Appropriate	Incidental		CFLs must be matched to their location to perform properly. Exterior bulbs should be exterior rated and only dimmable bulbs in fixtures with dimmers		
Work Quality	Direct Install Measures	CFL's	Q000000050	CFL(s) Function Properly	Incidental		The bulb energizes and comes to its full brightness		
Work Quality	Direct Install Measures	CFL's	Q000000051	CFL(s) Equal Wattage Of Replaced Bulb	Incidental		The replacement bulb should be close in Lumens to the bulb that it replaces		
Work Quality	Direct Install Measures	CFL's	Q000000052	Meets Program Requirements	Incidental				
Work Quality	Direct Install Measures	CFL's	Q000000053	Approved Socket Extender Installed	Incidental		Only socket extenders that have been approved by the program should be installed		
Work Quality	Direct Install Measures	CFL's	Q000000054	Correct Quantity Installed	Major		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	CO Detector	Q000000026	Contracted CO Detector Present	Critical	Contracted CO detector(s) have not been installed.	If the contract included installation of one or more CO detectors, verify that all have been installed.		CO detector(s) have not ben installed as contracted. All battery-only-powered carbon monoxide (CO) detectors shall have non-replaceable, non-removable batteries, capable of powering the devices for a minimum of ten years
Work Quality	Direct Install Measures	CO Detector	Q000000027	Powered by Lithium Battery	Incidental				

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Work Quality	Direct Install Measures	CO Detector	Q000000028	Meets Program Eligibility Requirements	Incidental		Employs an electro-chemical sensor		
Work Quality	Direct Install Measures	CO Detector	Q000000029	CO Detector Installation	Incidental		CO Detector Installed Per Manufacturer's Requirements		
Work Quality	Direct Install Measures	Combo Detector	Q000000663	Contracted Combination Smoke/CO Detector Present	Critical	Contracted combination Smoke/CO detector(s) has not been installed.	If the contract included installation of one or more Combo Smoke/CO detectors, verify that all have been installed.		Combination Smoke/CO detector(s) have not been installed as contracted. All battery-only-powered combination smoke/carbon monoxide (CO) detectors shall have non-replaceable, non-removable batteries, capable of powering the devices for a minimum of ten years
Work Quality	Direct Install Measures	Combo Detector	Q000000664	Combination Smoke/CO Detector Installation	Major		Combination Smoke/CO detector must be installed per manufacturer's specifications		
Work Quality	Direct Install Measures	Combo Detector	Q000000665	Powered by Lithium battery	Major				
Work Quality	Direct Install Measures	Combo Detector	Q000000666	Make and Model Program Approved	Major				
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000075	Tank Wrap Not Compressed	Incidental		Tank wrap should be installed tight enough not to sag but not so tight that the fiber glass is compressed which would reduce the R-value		
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000076	Contracted Tank Wrap Installed	Major		Tank wrap was installed and the r-value matches the contracted value	R-value of installed tank wrap is less than what contracted for	Tank wrap was not installed
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000077	Seam Are Folded Neatly & Stapled At 2" Intervals	Incidental		When installing a tank wrap, the wrap should have enough excess material to neatly fold the seam over (hiding the fiber glass and completing the vapor retarder.) This seam should be kept straight and fastened every 2".		
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000078	Tank Wrap Clear Of Heat Sources	Minor		The tank wrap should not be closer than 6" to any flue pipe or the air intake at the bottom of a fossil fuel water heater. The top of a fossil fuel water heater should not be insulated.		
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000079	Electric Water Heater - Tank Wrap Installed on Top Of Tank Done Properly	Incidental		The top should be insulated and all seams and penetrations tightly sealed		
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000080	Control Access Cut-out Done Properly	Incidental		The control panel must be exposed. It should be cut in an "I" pattern		
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000081	Pressure Relief Cut-out Done Properly	Incidental		The tank wrap should not encompass the pressure relief valve or piping		
Work Quality	Direct Install Measures	DHW Tank Wrap	Q000000082	Seams Sealed With Vinyl Tape	Incidental		The seams of the tank wrap should be sealed with the vinyl tape supplied in the tank wrap kit. No duct tape		
Work Quality	Direct Install Measures	Fluorescent Torchieres	Q000000058	Replacement Torchiere Is ENERGY STAR Rated	Incidental				
Work Quality	Direct Install Measures	Fluorescent Torchieres	Q000000059	Fixture Has Comparable Luminescence	Incidental				
Work Quality	Direct Install Measures	Fluorescent Torchieres	Q000000060	Dimmer Appropriate	Incidental		Circuit Not On A Dimmer Unless Lamp Is Rated For Dimmer		
Work Quality	Direct Install Measures	Fluorescent Torchieres	Q000000061	Existing Torchiere Disabled	Incidental		The contractor is required to dispose of the old bulb and cut the cord on the existing torchiere. He may leave it with the homeowner. If he did not, just mark this as NI.		
Work Quality	Direct Install Measures	Fluorescent Torchieres	Q000000062	Correct Quantity Installed	Major		There should be the same number of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	Hot Water Pipe Insulation	Q000000083	Billed Insulation Installed	Major		At least 90% of the pipe insulation was installed as contracted		Less than 90% of contracted pipe insulation was installed
Work Quality	Direct Install Measures	Hot Water Pipe Insulation	Q000000084	Pipe Insulation Has Necessary Clearance To Heat Sources	Minor		Pipe insulation was installed more than 3" from double a wall vent or 6" from a single wall vent	N/A	Pipe insulation was installed less than 3" from a double wall vent or 6" from a single wall vent
Work Quality	Direct Install Measures	Hot Water Pipe Insulation	Q000000085	Correct Material Used	Incidental		R-3 neoprene or closed cell foam		

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Work Quality	Direct Install Measures	Hot Water Pipe Insulation	Q000000086	Elbows Mitered Neatly	Incidental		Elbows should be cut at 45 degree angles and fitted together to minimize gaps at elbows		
Work Quality	Direct Install Measures	Hot Water Pipe Insulation	Q000000087	T Connections Cut Properly	Incidental		T connections should have the main branch notch as small as possible and still accommodate the intersecting pipe. The intersecting pipe insulation should have the end cut in a "V" pattern and pushed into place to minimize gaps at T connections		
Work Quality	Direct Install Measures	Hot Water Pipe Insulation	Q000000088	Insulation Fastened Securely	Incidental		Zip ties installed at least every 12" and within 2" of the end of any piece.	Zip ties installed but the spacing is such that the pipe insulation has minor gaps resulting in exposed pipe	Zip ties were not installed every 12" or no zip ties were installed and/or unacceptable materials were used to secure the pipe insulation (i.e. duct tape)
Work Quality	Direct Install Measures	Hot Water Pipe Insulation	Q000000089	Seams Are On Bottom Of Pipe	Incidental				
Work Quality	Direct Install Measures	Hot Water Temperature Setback	Q000000091	Hot Water Temperature Is Set For Approximately 120 Degrees	Incidental				
Work Quality	Direct Install Measures	Hot Water Temperature Setback	Q000000092	Homeowner Was Instructed How To Set Temperature To Original Setting	Incidental		Verify with the homeowner. If the homeowner cannot recall, the task should be rated as Not Inspected		
Work Quality	Direct Install Measures	Kitchen Faucet Aerator	Q000000036	Meets Program Requirements	Incidental		Installed aerator has the required gpm		
Work Quality	Direct Install Measures	Kitchen Faucet Aerator	Q000000037	Aerator Is Leak Free	Incidental				
Work Quality	Direct Install Measures	Kitchen Faucet Aerator	Q000000038	Aerator Finish Is Unmarked	Incidental				
Work Quality	Direct Install Measures	Kitchen Faucet Aerator	Q000000039	Teflon Tape Neatly Installed	Incidental				
Work Quality	Direct Install Measures	Kitchen Faucet Aerator	Q000000040	Water Stream Straight	Incidental				
Work Quality	Direct Install Measures	Kitchen Faucet Aerator	Q000000041	Correct Quantity Installed	Major		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	LED's	Q000000063	Installed Bulb(s) Are ENERGY STAR rated	Incidental				
Work Quality	Direct Install Measures	LED's	Q000000065	LED Location Appropriate	Incidental		LEDs should be installed in high use areas and should not be installed where used less than 2 hours a day (average) such as in closets, pantries, etc.		
Work Quality	Direct Install Measures	LED's	Q000000066	Night Light Replaced Incandescent Bulb	Incidental		Only existing night lights can be replaced		
Work Quality	Direct Install Measures	LED's	Q000000067	Night Light Functions	Incidental		The bulb energizes and comes to full brightness		
Work Quality	Direct Install Measures	LED's	Q000000069	Correct Quantity Installed	Major		There should be the same number of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	Light Fixtures	Q000000055	Fixture Meets Rating Or Ballast Standards	Incidental		Must be ENERGY STAR rated or must have an electronic ballast		
Work Quality	Direct Install Measures	Light Fixtures	Q000000056	Fixture Not On A Dimmer	Incidental				
Work Quality	Direct Install Measures	Light Fixtures	Q000000057	Correct Quantity Installed	Major		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	LowFlow Showerhead	Q000000042	Meets Program Requirements	Incidental				
Work Quality	Direct Install Measures	LowFlow Showerhead	Q000000043	Showerhead Is Leak Free	Incidental				
Work Quality	Direct Install Measures	LowFlow Showerhead	Q000000044	Showerhead Finish Is Unmarked	Incidental				

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Work Quality	Direct Install Measures	LowFlow Showerhead	Q000000045	Teflon Tape Neatly Installed	Incidental				
Work Quality	Direct Install Measures	LowFlow Showerhead	Q000000046	Water Stream Even	Incidental				
Work Quality	Direct Install Measures	LowFlow Showerhead	Q000000047	Correct Quantity Installed	Major		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	Motion Sensor Timer	Q000000098	Motion Sensor Timer Installed As Contracted	Major				
Work Quality	Direct Install Measures	Motion Sensor Timer	Q000000099	Motion Sensor Functions Properly	Incidental				
Work Quality	Direct Install Measures	Moveable Window Insulation	Q000000093	Installed Panel Is R-3 Or Greater	Incidental		Panel should have documentation showing it is R-3 or has a U-factor of .33 or less		
Work Quality	Direct Install Measures	Moveable Window Insulation	Q000000094	Panel Securely Fastened To Interior Finish	Incidental				
Work Quality	Direct Install Measures	Moveable Window Insulation	Q000000095	Fastening System Allows For Easy Removal	Incidental		Window insulation should be screwed or clipped in place rather than nailed or glued		
Work Quality	Direct Install Measures	Moveable Window Insulation	Q000000096	Panel Is Gasketed And Appears To Be Air Tight	Incidental		Where panel meets interior finish there should be a gasket that is fully engaged around the panel and compressed		
Work Quality	Direct Install Measures	Moveable Window Insulation	Q000000097	Correct Number Of Windows Treated	Minor				
Work Quality	Direct Install Measures	Programmable Thermostats	Q000000070	Installed Thermostat Has Been Programmed	Incidental		The installed thermostat has been programmed and is running on the program. If it is not running on the program, the inspector should ask the customer whether they turned it off. If customer cannot remember whether they or someone else turned it off, rate this as 'Not Inspected.'		
Work Quality	Direct Install Measures	Programmable Thermostats	Q000000071	Fan-Only Switch Functions	Incidental		The thermostat should have a "fan only" switch that turns the fan on high speed without calling for heating or cooling. Verify that it works properly		
Work Quality	Direct Install Measures	Programmable Thermostats	Q000000072	Equipment Cycles In The Correct Order	Incidental		When equipment is turned on in heating mode, the inducer fan or power vent should turn on first, followed by the heat exchanger and finally blower fan		
Work Quality	Direct Install Measures	Programmable Thermostats	Q000000073	Surrounding Finish Returned To Original Condition	Incidental				
Work Quality	Direct Install Measures	Programmable Thermostats	Q000000074	Correct Quantity Installed	Major		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Work Quality	Direct Install Measures	Smoke Detector	Q000000022	Contracted Smoke Detector Present	Critical	Contracted smoke detector(s) has not been installed.	If the contract included installation of one or more Smoke detectors, verify that all have been installed.		Smoke detector(s) have not ben installed as contracted. All battery-only-powered carbon monoxide (CO) detectors shall have non-replaceable, non-removable batteries, capable of powering the devices for a minimum of ten years
Work Quality	Direct Install Measures	Smoke Detector	Q000000023	Smoke Detector Installation	Incidental		Smoke Detector must be installed per manufacturer's specifications		
Work Quality	Direct Install Measures	Smoke Detector	Q000000024	Powered by Lithium battery	Incidental				
Work Quality	Direct Install Measures	Smoke Detector	Q000000025	Make and Model Program Approved	Incidental				Revisit to address Installed Battery Only CO/Smoke detector per NYSERDA's Home Performance with ENERGY STAR® and EmPower New York programs will require that all battery-only-powered smoke detectors, carbon monoxide (CO) detectors and smoke/CO combination detectors have non-replaceable, non-removable batteries, capable of powering the devices for a minimum of ten years

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Work Quality	Duct Work	Duct Insulation	Q000000184	Correct R-Value And Amount Installed	Major		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable		Less than 90% of billed insulation was installed
Work Quality	Duct Work	Duct Insulation	Q000000185	Insulation Not Compressed	Incidental		Insulation should not sag, but should not be pulled so tight it is compressed		
Work Quality	Duct Work	Duct Insulation	Q000000186	Seams Stapled Securely	Incidental		Excess material should be left when the insulation is cut. This excess should be folded neatly at the seams to hide the fiberglass and complete the vapor barrier. The seams should be stapled every 2" with a cinch stapler		
Work Quality	Duct Work	Duct Insulation	Q000000187	Vapor Retarder Continuous	Incidental		Once the seams are folded and stapled securely the seam should be sealed with vinyl tape to complete the vapor barrier. This is especially crucial with AC.		
Work Quality	Duct Work	Duct Insulation	Q000000188	Vapor Retarder Sealed With Vinyl Tape	Incidental				
Work Quality	Duct Work	Duct Sealing	Q000000674	Duct Sealing Completed as Contracted	Major		At least 90% of duct sealing in accessible areas was completed		Less than 75% of contracted duct sealing in accessible areas was completed
Work Quality	Duct Work	Duct Sealing	Q000000177	Sealant Material Was Appropriate	Incidental		Materials used were UL181B-FX or UL181A-M listed		
Work Quality	Duct Work	Duct Sealing	Q000000178	All Field Seams Sealed	Incidental	35 mil (~thickness of credit card) thick layer of duct mastic on all accessible duct seams per BPI and MIG standards. The QA inspector found mastic too thinly applied.	35 mil thick layer of mastic on all accessible seams		
Work Quality	Duct Work	Duct Sealing	Q000000179	Coil Housing Connections Sealed	Incidental	Install nickel thick layer of duct mastic on all accessible duct seams per BPI and MIG standards. The QA inspector found missed seams, and installed mastic too thinly applied.	Connections between furnace and coil housing are sealed with silicone caulk		
Work Quality	Duct Work	Duct Sealing	Q000000180	Filter Slot Treated	Incidental		A gasketed door or panel that is permanent may act as a filter slot cover		
Work Quality	Duct Work	Duct Sealing	Q000000183	Furnace Box Sealed Beneath (at Ground Level)	Incidental		Air handler cabinets which do not have "bottoms" should be sealed at their connection to the substrate or a fireproof material should be fastened and air sealed.		
Work Quality	Duct Work	Flex Duct Installation	Q000000558	Flexible Ducts Installed as Invoiced	Major				
Work Quality	Duct Work	Flex Duct Installation	Q000000549	Flexible Duct Location Appropriate	Incidental		Flexible duct is installed in a location where not subject to degradation		
Work Quality	Duct Work	Flex Duct Installation	Q000000550	Flexible Ducts Supported	Incidental		Flexible duct is fully extended, not compressed and has proper support at correct intervals.		
Work Quality	Duct Work	Metal Duct Installation	Q000000554	Joints, Seams and Connections	Incidental		All joints, seams and connections are mechanically fastened and sealed with mastic, or other approved material per MIG 6.19.2		
Work Quality	Duct Work	Metal Duct Installation	Q000000555	Ducts and Plenum Metal Thickness	Incidental		Metal duct is of the correct thickness		
Work Quality	Duct Work	Metal Duct Installation	Q000000556	Metal Ducts Properly Supported	Incidental		Ducts are supported at the proper intervals using the correct material.		
Work Quality	Duct Work	Metal Duct Installation	Q000000557	Ducts Installed as Invoiced	Minor				
Work Quality	Duct Work	Rigid Fibrous Duct Installation	Q000000676	Rigid Fibrous Duct Installed as Invoiced	Major				
Work Quality	Duct Work	Rigid Fibrous Duct Installation	Q000000569	Duct Installation Appropriate	Minor		Hanger straps or saddles must be a minimum of 2" wide. Avoid sharp edges and burrs. Hangers must be spaced on 6 foot centers, and must be located at circumferential joints wherever practical. Duct must be hung so that the hanger will not cut or otherwise damage the duct facing (NAIMA Fibrous Glass Duct Liner Standard).		
Work Quality	Duct Work	Rigid Fibrous Duct Installation	Q000000570	Location of Installation	Minor		Rigid fibrous glass duct must not be used in concrete, buried below grade, or any other location where it may be exposed to weather or physical abuse.		
Work Quality	Heating System	Air Conditioner Replacement	Q000000480	Contracted Equipment Installed	Major		Verified that all contracted items were installed as per contract	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Air Conditioner Replacement	Q000000481	Equipment Sizing is Appropriate	Major				

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Work Quality	Heating System	Air Conditioner Replacement	Q00000482	Air Filter Accessible	Minor				
Work Quality	Heating System	Air Conditioner Replacement	Q00000484	Maintenance Access Is Accessible	Major				
Work Quality	Heating System	Air Conditioner Replacement	Q00000489	Electric	Major		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Air Conditioner Replacement	Q00000490	Condensate Drain	Minor		Condensate drain installed properly and discharges with air gap or other approved place of disposal. Preferred areas to drain condensate include service sinks, French drains/ground water ejector pits		Condensate drain piping is improperly attached to the sanitary system (no trap or air gap). Condensate drain piping shall not be siliconed into a hole drilled in the sanitary piping.
Work Quality	Heating System	Air Conditioner Replacement	Q00000492	Heat Rise Test	Major		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Air Conditioner Replacement	Q00000493	Dedicated Duct System	Major		Installed equipment must not share a duct vent with another equipment		
Work Quality	Heating System	Air Conditioner Replacement	Q00000494	Duct System Airflow	Major		Airflow through duct system must meet manufacturer's specifications		
Work Quality	Heating System	Air Conditioner Replacement	Q00000495	Duct Connections	Major		All ducts are properly connected		
Work Quality	Heating System	Air Conditioner Replacement	Q00000496	Duct - Unit Connection	Major		Duct must be properly sealed at connection with unit		
Work Quality	Heating System	Air Conditioner Replacement	Q00000497	Duct Insulation	Minor		Ducts in semi or unconditioned space must be insulated to a minimum R-value		Ducts not insulated to a minimum of R-6 in unconditioned basements, crawl spaces or garages. Not insulated to a minimum of R-8 in unconditioned attics
Work Quality	Heating System	Air Conditioner Replacement	Q00000498	Duct Return Appropriate	Major		Duct return must not be installed in CAZ		
Work Quality	Heating System	Air Conditioner Replacement	Q00000499	Equipment Removal	Major		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Work Quality	Heating System	Clean and Tune	Q00000717	Heating Appliance Clean and Tune	Major		Heating appliance cleaned and tuned as contracted		Heating appliance was not cleaned an tuned as contracted
Work Quality	Heating System	Gas Hearth	Q00000440	Contracted Equipment Installed	Major		Verified that all contracted items were installed as per contract	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Gas Hearth	Q00000441	Equipment Sizing is Appropriate	Major				
Work Quality	Heating System	Gas Hearth	Q00000442	Air Filter Accessible	Minor				
Work Quality	Heating System	Gas Hearth	Q00000443	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Gas Hearth	Q00000444	Maintenance Access Is Accessible	Minor				
Work Quality	Heating System	Gas Hearth	Q00000445	Venting - Sealed Combustion Units	Major		Units capable of sealed combustion must be setup to draw outside air		
Work Quality	Heating System	Gas Hearth	Q00000446	Venting - Natural Draft	Major		Venting must maintain proper clearance to combustibles		
Work Quality	Heating System	Gas Hearth	Q00000447	Gas Line Properly Sized	Major				
Work Quality	Heating System	Gas Hearth	Q00000448	Gas Line - CCST Properly Grounded	Major				
Work Quality	Heating System	Gas Hearth	Q00000449	Electric	Major		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Gas Hearth	Q00000452	Heat Rise Test	Major		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Gas Hearth	Q00000459	Equipment Removal	Major		If included as part of the contract, the original equipment being replaced and all related items must be removed from the home		
Work Quality	Heating System	Gas/Propane Furnace	Q00000328	Contracted Furnace Installed	Major		Verified that the contracted furnace was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Installed furnace does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed furnace does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Gas/Propane Furnace	Q00000697	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Heating System	Gas/Propane Furnace	Q00000365	Equipment Sizing is Appropriate	Major				

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Work Quality	Heating System	Gas/Propane Furnace	Q000000366	Air Filter and Accessible	Minor		All air filters must be installed in the return air system in a location that is easily accessible for the homeowner to change. All return air must pass through the return air system. All new duct systems installed must include minimum MERV 6 with design accounting for filter pressure drop @ design airflow.		
Work Quality	Heating System	Gas/Propane Furnace	Q000000367	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Gas/Propane Furnace	Q000000368	Maintenance Access Is Accessible	Minor				
Work Quality	Heating System	Gas/Propane Furnace	Q000000369	Venting Acceptable - Sealed Combustion Units	Minor		Units capable of sealed combustion must be setup to draw outside air		
Work Quality	Heating System	Gas/Propane Furnace	Q000000370	Venting Acceptable - Natural Draft	Minor		Inspect the venting system for proper size and horizontal pitch, as required in the latest edition of the National Fuel Gas Code (NFPA 54). Venting must maintain proper clearance to combustibles		
Work Quality	Heating System	Gas/Propane Furnace	Q000000371	Gas Line Properly Sized	Major				
Work Quality	Heating System	Gas/Propane Furnace	Q000000372	Gas Line - CCST Properly Grounded	Minor				
Work Quality	Heating System	Gas/Propane Furnace	Q000000374	Electrical	Major		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Gas/Propane Furnace	Q000000375	Condensate Drain	Minor		Condensate drain installed per manufacturer's specifications and discharges with air gap or other approved place of disposal. Preferred areas to drain condensate include service sinks, French drains/ground water ejector pits		Condensate drain piping is improperly attached to the sanitary system (no trap or air gap). Condensate drain piping shall not be siliconed into a hole drilled in the sanitary piping.
Work Quality	Heating System	Gas/Propane Furnace	Q000000377	Heat Rise Test	Minor		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Gas/Propane Furnace	Q000000378	Dedicated Duct System	Minor		Installed equipment must not share a duct vent with another equipment		
Work Quality	Heating System	Gas/Propane Furnace	Q000000379	Duct System Airflow	Minor		On installation where a new duct system is installed the following must be met: The individual room airflows are within the greater of ± 20% or 25CFM of the design/application requirements for the supply and return ducts. Contractor must measure airflow and adjust to above specifications along with providing air balancing report.		
Work Quality	Heating System	Gas/Propane Furnace	Q000000380	Duct Connections	Minor		All ducts are properly connected		
Work Quality	Heating System	Gas/Propane Furnace	Q000000381	Duct - Unit Connection	Minor		Duct must be properly sealed at connection with unit		
Work Quality	Heating System	Gas/Propane Furnace	Q000000382	Duct Insulation	Minor		Ducts in semi or unconditioned space must be insulated to a minimum R-value		Score new ductwork systems here. For insulating existing duct work score under Heating System > Ductwork > Duct Insulation
Work Quality	Heating System	Gas/Propane Furnace	Q000000383	Duct Return Appropriate	Minor		Duct return must not be installed in CAZ		
Work Quality	Heating System	Gas/Propane Furnace	Q000000384	Equipment Removal	Minor		If included as part of the contract, the original equipment being replaced and all related items must be removed from the home		
Work Quality	Heating System	Gas/Propane Furnace	Q000000712	System Functioning Properly	Major		The installed system is functioning to manufacturer specifications		
Work Quality	Heating System	Gas/Propane HW Boiler	Q000000574	Equipment Sizing is Appropriate	Major		Boiler, pump and system piping must be sized per manufacturer's specifications, IBR or approved equivalent.		
Work Quality	Heating System	Gas/Propane HW Boiler	Q000000575	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Gas/Propane HW Boiler	Q000000576	Maintenance Access Is Accessible	Minor				
Work Quality	Heating System	Gas/Propane HW Boiler	Q000000577	Venting Acceptable - Sealed Combustion Units	Major		Units capable of sealed combustion must be setup to draw outside air		
Work Quality	Heating System	Gas/Propane HW Boiler	Q000000578	Venting Acceptable - Natural Draft	Major		Venting must maintain proper clearance to combustibles		

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Work Quality	Heating System	Gas/Propane HW Boiler	Q00000579	Gas Line Properly Sized	Major				
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000580	Gas Line - CCST Properly Grounded	Major				
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000581	Electric	Major		There are no electrical safety issues and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000582	Water Testing and Treatment	Major		A copy of the water testing results has been provided to the homeowner. If the water is not within the boiler manufacturers specifications, water treatment has been provided and documented		Water testing results not provided and/or documentation on how to maintain the water treatment has not been provided per MIG 6.1.17
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000583	Heat Rise Test	Major		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000584	Equipment Removal	Major		If included as part of the contract, the original equipment being replaced and all related items must be removed from the home		
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000560	Contracted Boiler Installed	Major		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Installed boiler does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed boiler does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000698	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000625	Pipe Insulation	Major		Boiler piping installed in unconditioned spaces must be insulated with a minimum of R-4. Existing boiler piping installed in unconditioned spaces must be insulated to a minimum of R-4.		
Work Quality	Heating System	Gas/Propane HW Boiler	Q00000639	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping is installed to proper specifications		
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000699	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000655	All Exposed Pipes Insulated	Major				
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000400	Contracted Steam Boiler Installed	Major		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000401	Equipment Sizing is Appropriate	Major				
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000403	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000404	Maintenance Access Is Accessible	Minor				
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000405	Venting - Sealed Combustion Units	Minor		Units capable of sealed combustion must be setup to draw outside air		
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000406	Venting - Natural Draft	Major		Venting must maintain proper clearance to combustibles		
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000407	Gas Line Properly Sized	Major				
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000408	Gas Line - CCST Properly Grounded	Major				
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000409	Electric	Major		There are no electrical safety issues and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000410	Water Testing and Treatment	Major		A copy of the water testing results has been provided to the homeowner. If the water is not within the boiler manufacturers specifications, water treatment has been provided and documented		Water testing results not provided and/or documentation on how to maintain the water treatment has not been provided
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000411	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping is installed to proper specifications		
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000412	Heat Rise Test	Minor		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Gas/Propane Steam Boiler	Q00000419	Equipment Removal	Minor		If included as part of the contract, the original equipment being replaced and all related items must be removed from the home		

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Work Quality	Heating System	Oil Furnace	Q000000700	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Heating System	Oil Furnace	Q000000626	Air Filter	Major		All air filters must be installed in the return air system in a location that is easily accessible for the homeowner to change. All return air must pass through the return air system. All new duct systems installed must include minimum MERV 6 with design accounting for filter pressure drop @ design airflow.		
Work Quality	Heating System	Oil Furnace	Q000000627	Fuel Oil Storage System	Major		The integrity of the fuel oil storage system must be checked and repairs/replacement included with new installation. New oil storage system must be installed in accordance with the latest edition of NFPA 31.		
Work Quality	Heating System	Oil Furnace	Q000000628	Fuel Oil Piping	Major		All oil piping to be leak-free and must be sized to provide adequate oil supply to all connected oil appliances. Oil line piping design, materials, and construction must be in accordance with the latest edition of NFPA 31		
Work Quality	Heating System	Oil Furnace	Q000000329	Contracted Equipment Installed	Major		Verified that the contracted furnace was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Oil Furnace	Q000000585	Equipment Sizing is Appropriate	Major				
Work Quality	Heating System	Oil Furnace	Q000000586	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Oil Furnace	Q000000587	Maintenance Access Is Accessible	Major		Units capable of sealed combustion must be setup to draw outside air		
Work Quality	Heating System	Oil Furnace	Q000000589	Venting Acceptable - Natural Draft	Major		Inspect the venting system for proper size and horizontal pitch, as required in the latest edition of the National Fuel Gas Code (NFPA 54). Venting must maintain proper clearance to combustibles		
Work Quality	Heating System	Oil Furnace	Q000000590	Electric	Major		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Oil Furnace	Q000000591	Condensate Drain	Minor		Condensate drain installed per manufacturer's specifications and discharges with air gap or other approved place of disposal. Preferred areas to drain condensate include service sinks, French drains/ground water ejector pits		Condensate drain piping is improperly attached to the sanitary system (no trap or air gap). Condensate drain piping shall not be siliconed into a hole drilled in the sanitary piping.
Work Quality	Heating System	Oil Furnace	Q000000592	Heat Rise Test	Major				
Work Quality	Heating System	Oil Furnace	Q000000593	Dedicated Duct System	Major		Installed equipment must not share a duct vent with another equipment		
Work Quality	Heating System	Oil Furnace	Q000000594	Duct System Airflow	Major		On installation where a new duct system is installed the following must be met: The individual room airflows are within the greater of ± 20% or 25CFM of the design/application requirements for the supply and return ducts. Contractor must measure airflow and adjust to above specifications along with providing air balancing report.		
Work Quality	Heating System	Oil Furnace	Q000000595	Duct Connections	Major		All ducts are properly connected		
Work Quality	Heating System	Oil Furnace	Q000000596	Duct - Unit Connection	Major		Duct must be properly sealed at connection with unit		
Work Quality	Heating System	Oil Furnace	Q000000597	Duct Insulation	Minor		Ducts installed in semi or unconditioned space must be insulated to a minimum R-value		Ducts not insulated to a minimum of R-6 in unconditioned basements, crawl spaces or garages. Not insulated to a minimum of R-8 in unconditioned attics
Work Quality	Heating System	Oil Furnace	Q000000598	Duct Return Appropriate	Major		Duct return must not be installed in CAZ		
Work Quality	Heating System	Oil Furnace	Q000000599	Equipment Removal	Major		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		

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Work Quality	Heating System	Oil HW Boiler	Q00000600	Maintenance Access Is Accessible	Major				
Work Quality	Heating System	Oil HW Boiler	Q00000601	Venting Acceptable - Sealed Combustion Units	Major		Units capable of sealed combustion must be setup to draw outside air		
Work Quality	Heating System	Oil HW Boiler	Q00000602	Venting Acceptable - Natural Draft	Major		Venting must maintain proper clearance to combustibles. Inspect the venting system for proper size and horizontal pitch, as required in the latest edition of the National Fuel Gas Code (NFPA 54).		
Work Quality	Heating System	Oil HW Boiler	Q00000605	Electric	Major		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Oil HW Boiler	Q00000606	Water Testing and Treatment	Major		A copy of the water testing results has been provided to the homeowner. If the water is not within the boiler manufacturers specifications, water treatment has been provided and documented		Water testing results not provided and/or documentation on how to maintain the water treatment has not been provided
Work Quality	Heating System	Oil HW Boiler	Q00000607	Heat Rise Test	Major		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Oil HW Boiler	Q00000608	Equipment Removal	Major		If included as part of the contract, the original equipment being replaced and all related items must be removed from the home		
Work Quality	Heating System	Oil HW Boiler	Q00000588	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Oil HW Boiler	Q00000561	Contracted Boiler Installed	Major		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Oil HW Boiler	Q00000629	Fuel Oil Storage System	Major		The integrity of the fuel oil storage system must be checked and repairs/replacement included with new installation. New oil storage system must be installed in accordance with the latest edition of NFPA 31.		
Work Quality	Heating System	Oil HW Boiler	Q00000640	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping is installed to proper specifications		
Work Quality	Heating System	Oil HW Boiler	Q00000631	Fuel Oil Piping	Major		All oil piping to be leak-free and must be sized to provide adequate oil supply to all connected oil appliances. Oil line piping design, materials, and construction must be in accordance with the latest edition of NFPA 31		
Work Quality	Heating System	Oil HW Boiler	Q00000701	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Heating System	Oil HW Boiler	Q00000667	Pipe Insulation	Major		Boiler piping installed in unconditioned spaces must be insulated with a minimum of R-4. Existing boiler piping installed in unconditioned spaces must be insulated to a minimum of R-4.	Water pipes are in the unconditioned space and the heating piping has not been insulated due to concerns of freezing the water pipes.	
Work Quality	Heating System	Oil HW Boiler	Q00000573	Equipment Sizing is Appropriate	Major				
Work Quality	Heating System	Oil Steam Boiler	Q00000656	All Exposed Pipes Insulated	Major				
Work Quality	Heating System	Oil Steam Boiler	Q00000702	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Heating System	Oil Steam Boiler	Q00000632	Fuel Oil Piping	Major		All oil piping to be leak-free and must be sized to provide adequate oil supply to all connected oil appliances. Oil line piping design, materials, and construction must be in accordance with the latest edition of NFPA 31		
Work Quality	Heating System	Oil Steam Boiler	Q00000641	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping is installed to proper specifications		
Work Quality	Heating System	Oil Steam Boiler	Q00000630	Fuel Oil Storage Tank	Major		The integrity of the fuel oil storage system must be checked and repairs/replacement included with new installation. New oil storage system must be installed in accordance with the latest edition of NFPA 31.		

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Work Quality	Heating System	Oil Steam Boiler	Q00000420	Contracted Steam Boiler Installed	Major		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Oil Steam Boiler	Q00000421	Equipment Sizing is Appropriate	Major				
Work Quality	Heating System	Oil Steam Boiler	Q00000423	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Oil Steam Boiler	Q00000424	Maintenance Access Is Accessible	Minor				
Work Quality	Heating System	Oil Steam Boiler	Q00000425	Venting - Sealed Combustion Units	Minor		Units capable of sealed combustion must be setup to draw outside air		
Work Quality	Heating System	Oil Steam Boiler	Q00000426	Venting - Natural Draft	Major		Venting must maintain proper clearance to combustibles		
Work Quality	Heating System	Oil Steam Boiler	Q00000429	Electric	Major		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Oil Steam Boiler	Q00000430	Water Testing and Treatment	Major		A copy of the water testing results has been provided to the homeowner. If the water is not within the boiler manufacturers specifications, water treatment has been provided and documented		Water testing results not provided and/or documentation on how to maintain the water treatment has not been provided
Work Quality	Heating System	Oil Steam Boiler	Q00000432	Heat Rise Test	Minor		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Oil Steam Boiler	Q00000439	Equipment Removal	Minor		If included as part of the contract, the original equipment being replaced and all related items must be removed from the home		
Work Quality	Heating System	Solid Fuel Hearth	Q00000460	Contracted Equipment Installed	Major		Verified that all contracted items were installed as per contract	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Heating System	Solid Fuel Hearth	Q00000461	Equipment Sizing is Appropriate	Major				
Work Quality	Heating System	Solid Fuel Hearth	Q00000462	Air Filter Accessible	Minor				
Work Quality	Heating System	Solid Fuel Hearth	Q00000463	Proper Clearance To Combustibles	Major				
Work Quality	Heating System	Solid Fuel Hearth	Q00000464	Maintenance Access Is Accessible	Major				
Work Quality	Heating System	Solid Fuel Hearth	Q00000466	Venting - Natural Draft	Major		Venting must maintain proper clearance to combustibles		
Work Quality	Heating System	Solid Fuel Hearth	Q00000467	Gas Line Properly Sized	Major				
Work Quality	Heating System	Solid Fuel Hearth	Q00000469	Electrical	Major		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Work Quality	Heating System	Solid Fuel Hearth	Q00000472	Heat Rise Test	Major		Delta T from heat rise test must fall within manufacturer's specifications		
Work Quality	Heating System	Solid Fuel Hearth	Q00000479	Equipment Removal	Major		If included as part of the contract, the original equipment being replaced and all related items must be removed from the home		
Work Quality	Hot Water System	Air Source Heat Pump	Q00000649	Manual Provided	Incidental		OEM manuals must be left with the installed tank		
Work Quality	Hot Water System	Air Source Heat Pump	Q00000566	Contracted Item Installed Per Contract	Major		Verified that all contracted items were installed as per contract. Installed systems must be ENERGY STAR ® rated and only integrated heat pumps allowed, no add-on products (do not include storage tanks)	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Work Quality	Hot Water System	Air Source Heat Pump	Q00000567	Tank Installed in Proper Location	Major		Installed systems must be located outside of the conditioned area. Installed system must be located in space temperatures between 45-90 degrees or for a system that uses inlet air ducts the entering air must be between 40 – 90 degrees. Water heater location to be a 750 - 1,000 cubic feet of area or as required by manufacturer's specifications.		

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Work Quality	Hot Water System	Air Source Heat Pump	Q000000568	Modes of Operation	Major		Heat Pump Water Heaters must have at the minimum the following modes of operation:-- HEAT PUMP ONLY-- HYBRID: This mode uses the heat pump as the primary heating source. The heating element will heat water if demand exceeds a predetermined level so that the set point temperature can be recovered more quickly.-- ELECTRIC: The water heater functions as a conventional electric unit, relying totally on the elements to heat the water in the tank.-- VACATION: Unit off or set for very low temperature		
Work Quality	Hot Water System	Air Source Heat Pump	Q000000638	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping installed with proper specifications		
Work Quality	Hot Water System	Air Source Heat Pump	Q000000654	DHW Tank Removal	Major		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Work Quality	Hot Water System	Air Source Heat Pump	Q000000709	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Hot Water System	Boiler Reset Control	Q000000352	Contracted Equipment Installed	Major				
Work Quality	Hot Water System	Boiler Reset Control	Q000000263	Boiler Is In Good Working Condition	Minor				
Work Quality	Hot Water System	Boiler Reset Control	Q000000264	Boiler SSE 75% Or Greater	Minor				
Work Quality	Hot Water System	Boiler Reset Control	Q000000265	Venting System Is In Good Working Order	Major				
Work Quality	Hot Water System	Boiler Reset Control	Q000000267	No Tankless Coil Present	Major				
Work Quality	Hot Water System	Boiler Reset Control	Q000000268	Programmable thermostats setback temp less than 5 degrees	Incidental				
Work Quality	Hot Water System	Boiler Reset Control	Q000000269	Manufacturer Warranty Left With Customer	Incidental				
Work Quality	Hot Water System	Electric DHW Tank	Q000000344	Contracted Items Installed	Major		Verified that all contracted items were installed as per contract	DHW tank installed does not match contract but the EF rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the EF is lower than what was contracted
Work Quality	Hot Water System	Electric DHW Tank	Q000000635	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping installed with proper specifications		
Work Quality	Hot Water System	Electric DHW Tank	Q000000619	Access Panel Is Accessible	Major				
Work Quality	Hot Water System	Electric DHW Tank	Q000000620	DHW Tank Removal	Major		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Work Quality	Hot Water System	Electric DHW Tank	Q000000621	Manual Provided	Incidental		OEM manuals must be left with the installed tank		
Work Quality	Hot Water System	Electric DHW Tank	Q000000622	Leak Free	Major		Water heater and system must be leak-free. All water leaks must be identified and repaired		
Work Quality	Hot Water System	Electric DHW Tank	Q000000623	Drain Free	Major		A drain pan must be installed underneath the water heater if it is located where leaks could cause damage. A 1-inch line must be installed between the pan and an appropriate drain		
Work Quality	Hot Water System	Electric DHW Tank	Q000000624	Location	Major		If possible, water heater must be placed where leakage from the relief valve, leakage from the related piping, or leakage from the tank or connections, will not result in damage to the surrounding areas, or to the lower floors of the building		
Work Quality	Hot Water System	Electric DHW Tank	Q000000703	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q000000704	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q000000342	Contracted Items Installed	Major		Verified that all contracted items were installed as per contract and are functioning properly	DHW tank installed does not match contract but the EF rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the EF is lower than what was contracted. Equipment installed matches contract but is not functioning properly.

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Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000633	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping installed with proper specifications		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000355	Appropriate Clearance to Combustibles Maintained	Major				
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000356	Access Panel Is Accessible	Minor				
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000357	DHW Tank Removal	Major		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000358	Manual Provided	Incidental		OEM manuals must be left with the installed tank		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000359	Leak Free	Minor		Water heater and system must be leak-free. All water leaks must be identified and repaired		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000360	Drain Pan	Minor		A drain pan must be installed underneath the water heater if it is located where leaks could cause damage. A 1-inch line must be installed between the pan and an appropriate drain.		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000361	Location	Minor		If possible, water heater must be placed where leakage from the relief valve, leakage from the related piping, or leakage from the tank or connections, will not result in damage to the surrounding areas, or to the lower floors of the building.		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000362	Combustion Safety Testing	Major		Unit passes all combustion safety tests		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000363	Venting	Major		Venting must have the proper sizing, design, material selection and assembly for the combustion gas venting system. Locate termination consistent with the latest edition of the National Fuel Gas Code (NFPA 54) and manufacturer's specifications		
Work Quality	Hot Water System	Gas/Propane DHW Tank	Q00000364	Gas Piping	Major		All gas piping to be leak-free / tested and must be sized to provide adequate gas supply to all connected gas appliances. Refer to the current National Fuel Gas Code (NFPA 54) (and for Propane NFPA 58) and local codes for gas piping requirements and sizing. Gas piping systems must be of such size and installed as to provide a supply of gas necessary to meet the maximum demand of the all gas appliances at the proper pressures. Gas pipe and connectors must have the appropriate support, hangers, anchors and gas pipe sealant. The new furnace must have a manual "equipment" shut-off valve in the gas supply line immediately upstream of union.		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000347	All Contracted Items Installed	Major		All contracted items were installed as described. Was not installed in conjunction with new boiler.	Installed equipment has the same efficiency specifications but is not the same model as contracted for.	Equipment was not installed. Or, the installed equipment is different than what was contracted for and the efficiency rating and/or features are less than what was paid for.
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000647	Manual Provided	Incidental		OEM manuals must be left with the installed tank		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000653	DHW Tank Removal	Major		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000705	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000650	Sufficient Flow	Major		System is sized properly to provide adequate flow rate to meet DHW load of household		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000385	Tankless Water Heater is Sealed Combustion	Minor				
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000386	Proper Clearance to Combustibles	Major				
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000387	Maintenance Access Panels are Accessible	Minor				

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Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000388	Venting	Major		All connections are sealed, sturdy and PVC glued. Sealed combustion units are vented to the outside.	One of more minor venting deficiencies that do not effect the H&S of the occupants exist	One or more venting deficiencies exist that pose a potential H&S risk to the customer.
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000389	Gas Lines	Major		Gas Lines are properly sized for demand, have no leaks and CCST is properly grounded		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000390	Electrical	Major?		No electrical safety issues exist and the shutoff switch is within reach for the customer		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000391	Water Line	Major		Water line is properly sized for the distance before on demand unit		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000392	Drain	Minor		Condensate does not drain below slab		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000393	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping installed with proper specifications		
Work Quality	Hot Water System	Gas/Propane Tankless DHW	Q00000394	Distribution Insulation	Minor		Hot water distribution is insulated to the minimum required r-value if unit is in semi or non-conditioned space		
Work Quality	Hot Water System	Indirect-Fired DHW Tank	Q00000652	DHW Tank Removal	Major		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Work Quality	Hot Water System	Indirect-Fired DHW Tank	Q00000642	Primary Zone Piping	Major		Indirect water heater must be piped as priority zone on boiler.		
Work Quality	Hot Water System	Indirect-Fired DHW Tank	Q00000644	Piping Controls and Pumping	Major		Boiler piping, controls and pumping must be installed to provide the proper flow through the indirect coil, specified by the indirect manufacturer. Cold-start control strategy must be used.		
Work Quality	Hot Water System	Indirect-Fired DHW Tank	Q00000645	Indirect DHW Tank Installed	Major		All contracted items were installed as described	Installed equipment has the same efficiency specifications but is not the same model as contracted for.	Equipment was not installed. Or, the installed equipment is different than what was contracted for and the efficiency rating and/or features are less than what was paid for.
Work Quality	Hot Water System	Indirect-Fired DHW Tank	Q00000646	Manual Provided	Incidental		OEM manuals must be left with the installed tank		
Work Quality	Hot Water System	Indirect-Fired DHW Tank	Q00000706	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Hot Water System	Indirect-Fired DHW Tank	Q00000636	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping is installed to proper specifications		
Work Quality	Hot Water System	Oil DHW Tank	Q00000343	Contracted Items Installed	Major		Verified that all contracted items were installed as per contract	DHW tank installed does not match contract but the EF rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the EF is lower than what was contracted
Work Quality	Hot Water System	Oil DHW Tank	Q00000634	Temperature-Pressure Relief Valve	Major		TPRV and down tube piping installed with proper specifications		
Work Quality	Hot Water System	Oil DHW Tank	Q00000707	Ancillary Equipment Installed	Incidental		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Work Quality	Hot Water System	Oil DHW Tank	Q00000610	Appropriate Clearance to Combustibles Maintained	Major				
Work Quality	Hot Water System	Oil DHW Tank	Q00000611	Access Panel Is Accessible	Major				
Work Quality	Hot Water System	Oil DHW Tank	Q00000612	DHW Tank Removal	Major		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Work Quality	Hot Water System	Oil DHW Tank	Q00000613	Manual Provided	Incidental		OEM manuals must be left with the installed tank		
Work Quality	Hot Water System	Oil DHW Tank	Q00000614	Leak Free	Major		Water heater and system must be leak-free. All water leaks must be identified and repaired		
Work Quality	Hot Water System	Oil DHW Tank	Q00000615	Drain Pan	Major		A drain pan must be installed underneath the water heater if it is located where leaks could cause damage. A 1-inch line must be installed between the pan and an appropriate drain.		

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Work Quality	Hot Water System	Oil DHW Tank	Q00000616	Location Appropriate	Major		If possible, water heater must be placed where leakage from the relief valve, leakage from the related piping, or leakage from the tank or connections, will not result in damage to the surrounding areas, or to the lower floors of the building.		
Work Quality	Hot Water System	Oil DHW Tank	Q00000617	Combustion Safety Testing	Major		Unit passes all combustion safety tests		
Work Quality	Hot Water System	Oil DHW Tank	Q00000618	Venting	Major		Venting must have the proper sizing, design, material selection and assembly for the combustion gas venting system. Locate termination consistent with the latest edition of the National Fuel Gas Code (NFPA 54) and manufacturer's specifications		
Work Quality	Hot Water System	Timer – Electric DHW Tank	Q00000270	Meter is Time of Use or Peak On/Off Rates	Major				
Work Quality	Hot Water System	Timer – Electric DHW Tank	Q00000271	Hot Water Tank Is 80 Gallons Or More	Major				
Work Quality	Hot Water System	Timer – Electric DHW Tank	Q00000272	Battery Backup Installed	Major				
Work Quality	Hot Water System	Well Pump Repair	Q00000299	Repairs Completed Per Contract	Major		All repairs were completed as per the contractor's invoice		
Work Quality	Hot Water System	Well Pump Repair	Q00000300	Well Pump Runs Correctly	Minor		The well pump should not run continuously.		The pump runs continuously.
Work Quality	Leakage Testing	Blower Door Testing	Q00000201	Blower Door Test Results Are Accurate	Major		Blower door results were submitted by the contractor and are within 10% of the inspector's numbers.	Blower door results were submitted by the contractor but are off by more than 10% but less than 20% from the inspector's numbers.	Blower door results were submitted by the contractor but are off by more than 20% from the inspector's numbers.
Work Quality	Leakage Testing	Blower Door Testing	Q00000202	Building Airflow Standard Acceptable	Major		Post-test results are above 70% of BAS		Post-test results are below 70% of BAS and no mechanical ventilation exists.
Work Quality	Leakage Testing	Blower Door Testing	Q00000710	Air Leakage Reduction Target Achieved	Minor		Inspector's cfm50 number indicates the contractor achieved their contracted air leakage reduction target within 10%. Mark this task as N/A if air sealing was a contracted measure but no quantitative cfm50 reduction was given.	Inspector's cfm50 number indicates the contractor achieved at least 80% of their contracted air leakage reduction target. Mark this task as N/A if air sealing was a contracted measure but no quantitative cfm50 reduction was given.	Inspector's cfm50 number indicates the contractor achieved less than 80% of their contracted air leakage reduction target. Mark this task as N/A if air sealing was a contracted measure but no quantitative cfm50 reduction was given.
Work Quality	Leakage Testing	Duct Testing	Q00000197	BPI Distribution Efficiency Look-Up Table	Major		Program contractors are encouraged to use the Look-up table method whenever duct system improvements are being performed and the lesser of 10 feet or 10% of total ductwork in the vicinity of the air handler will be affected (Greater than 10 feet or 10% of ductwork affected, a ductblaster or Delta Q test is required.)		
Work Quality	Leakage Testing	Duct Testing	Q00000198	Test-Out Numbers Are Accurate	Major		Contractor's Post-Test results must be within 10% of Inspector's Post-Test		
Work Quality	Leakage Testing	Duct Testing	Q00000199	Delta Q	Major				
Work Quality	Leakage Testing	Duct Testing	Q00000200	Leakage is less than or equal to 10% system airflow on test out	Major		This is based on a TDL – Total Duct Leakage test using a duct blaster. To calculate this value, multiply the system airflow by 0.1. If measured TDL is less than this product, then the system passes this BPI standard.		
Work Quality	Shell Measures	Attic Air Sealing	Q00000668	Air Sealing Work Completed As Contracted	Major		Air sealing work must be completed as contracted. If specific areas were mentioned in the contract, they must be completed. If the contract refers to a CFM reduction work must be completed within 90% of what was contracted for.		Less than 90% of contracted air sealing work was completed.
Work Quality	Shell Measures	Attic Air Sealing	Q00000102	Top Plates Sealed	Incidental		If contracted, balloon framed top plates should have an approved backer securely fastened or friction fit and all edges sealed with 1 or 2-part foam. Platform framing top plates should have had all debris moved away from seam between top plate and drywall and a continuous bead of 1-part foam applied along all the seams. If 2-part foam is used there should be only foam and drywall visible when finished		Not completed per MIG 3.2.5

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Work Quality	Shell Measures	Attic Air Sealing	Q000000103	Knee Wall Transition Sealed	Incidental		If contracted, the knee wall transition area should be sealed with an approved backer that is either mechanically fastened into place or friction fit. The seams and edges between the backer and the surrounding framing and sheathing should be sealed with 1 or 2-part foam. Inaccessible knee wall transitions should be sealed using dense pack insulation installed to a density of at least 3.5 lbs/cuft.		If the kneewall attic is not included in within the pressure boundary, the knee wall transition must be sealed. Not completed per MIG 3.2.5, MIG 3.8
Work Quality	Shell Measures	Attic Air Sealing	Q000000104	Plumbing Wet Walls Sealed	Incidental		If contracted, plumbing wet walls are sealed including vent penetration		Not completed per MIG 3.2.5
Work Quality	Shell Measures	Attic Air Sealing	Q000000105	Chimney Penetrations Sealed	Major		A clearance of three inches must be maintained between masonry chimneys or double wall metal vents and combustible materials, and six inches between single wall vents and combustible materials. The material used to seal this gap must be non-combustible air-tight material, such as metal flashing. The gaps between the flashing and the venting are ¼ inch or less and sealed with high temperature sealants (ASTM E 136 for oil or wood flues, 500F RTV silicone for gas flues). Other sealants can be used on the side of the sheet metal that is fastened to the framing.		Not completed per MIG 3.2.5
Work Quality	Shell Measures	Attic Air Sealing	Q000000106	Recessed Lights Covered/Sealed	Incidental		If contracted, unless a recessed light is ICAT (Insulation Contact Air Tight), there will be air leakage through this fixture. An airtight box will need to be built that maintains a clearance of at least 3 inches to any part of the light fixture. The sides of the box can be made of any rigid, air barrier material. For non-IC rated lights the top of the box must have an R-value of 0.5 or less and be vapor permeable. Boxes for non-IC rated lights cannot be insulated over. For IC rated lights the top of the box should be vapor permeable and this box can be insulated over.		Not completed per MIG 3.3.2
Work Quality	Shell Measures	Attic Air Sealing	Q000000107	Attic Access(s) Sealed	Major	Work scope provided for attic air sealing. Attic access is not air tight as possible using weather-stripping permanently mounted to the access and secured with metal fastenings that keep the access secure through repeated use. Refer to MIG 3.4	All gaps around attic access are weather-stripped in a manner that that allows no more that 2" of air leakage area between the conditioned space and the attic when a blower door is running @CFM50. Weather-stripping is permanently mounted to the access and secured with metal fastenings that keep the access secure through repeated use.		Attic access not weather striped and/or allows more that 2" of air leakage area between the conditioned space and the attic when a blower door is running @CFM50. Not Completed per MIG 3.4
Work Quality	Shell Measures	Attic Air Sealing	Q000000108	Drop Ceilings And Soffits Sealed	Incidental		If contracted, dropped ceiling/soffit areas should be bridged with an approved backer that is supported appropriately or at a minimum every 24 inches. The backer should lap the edges of the opening at least an inch to allow for secure fastening. All edges and seams should be sealed with an approved sealant.		Not completed per MIG 3.2.5
Work Quality	Shell Measures	Attic Air Sealing	Q000000109	Open Mechanical Chases Sealed	Incidental		If contracted, large chases that allow mechanicals to pass from the conditioned space to the attic should be bridged by an approved backer. This backer should be adequately supported at a minimum of every 24 inches. The backer should overlap the chase it spans by at least one inch and be fastened securely. The perimeter and seams of the backer as well as any penetrations should be well sealed with 1-part foam.		
Work Quality	Shell Measures	Attic Air Sealing	Q000000110	Bath Fans Sealed	Incidental		If contracted, all on-fan perforations & knockouts and areas around unit are sealed		
Work Quality	Shell Measures	Attic Insulation	Q000000111	Continuous Air Barrier Present	Incidental		The air barrier must be continuous before insulating the attic space		Bypasses not sealed prior to insulating per MIG 3.13.1
Work Quality	Shell Measures	Attic Insulation	Q000000112	Specified R-Value And Quantity Installed	Major	Contractor invoiced the Program for (amount and type of insulation). Installed insulation volume is less than contracted amount by more than 10%. Add additional insulation to match contract or reimburse the Program the cost of missing insulation.	At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable	Less than 90% but more than 80% of insulation was installed	Less than 90% of billed insulation was installed

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Work Quality	Shell Measures	Attic Insulation	Q000000113	Specified Material Type Installed	Major		Installed material matches contract	Installed insulation provides the equal or greater performance than contracted (vapor and thermal barrier, etc.); add conditional pass notes indicating the installed condition.	Installed insulation type does not match the contract or provide equal performance to contracted material(s)
Work Quality	Shell Measures	Attic Insulation	Q000000114	Installation Quality	Major		Loose fill blown in insulation must be installed according to manufacturer's specifications and installed to a level condition. Insulation depth markers installed and marked with the initial installed thickness. All openings into the cavity of blown-in insulation in restricted or dense packed applications must be sealed in such a manner as to prohibit the insulation from coming out of the cavity.		
Work Quality	Shell Measures	Attic Insulation	Q000000115	Heat Source(s) Dammed	Major		Blown in insulation must be contained using damming at the following areas and listed clearances: chimneys & double wall flues (3 inches), single wall flues (6 inches), Recessed lights or bath fans with heat lamps or lights (3 inches).		Not completed per MIG 2.6.2
Work Quality	Shell Measures	Attic Insulation	Q000000116	Mechanical Systems dammed	Major		Blow in insulation is dammed to allow maintenance access and manufacturer required clearances from combustibles. Damming installed to prevent intrusion of insulation into whole house fans, condensate pans, etc.		Not completed per MIG 3.13
Work Quality	Shell Measures	Attic Insulation	Q000000117	Access Treated as Specified	Major	Work scope provided for attic insulation and attic access is not insulated to a minimum of R-14. All attic access openings, including doors, hatches, and pull-down stairs shall have a tightly fitting cover which is insulated to a minimum R-14.	If attic insulation is contracted the attic access is insulated with R-14 or greater.		Attic access insulation less than R-14. Not completed per MIG 3.4
Work Quality	Shell Measures	Attic Insulation	Q000000118	Wind Baffles Installed	Minor		Baffles must be installed at each soffit vent unless appropriate structural barriers exist to ensure appropriate air flow and protection from wind-washing. Baffles must be permanent, mechanically fastened at sides and at bottom, and ensure the free movement of air through soffit vents into the attic; they must extend above the final level of insulation by at least four inches. Baffles must be rigid enough to restrain loose-fill insulation from congesting the soffit vents at the eaves and obstructing ventilation. Baffles shall made using rigid foam board, structural insulated sheathing, framing lumber, plywood, OSB or the pre-formed/manufactured type.		Baffles not installed per MIG 3.13.4
Work Quality	Shell Measures	Attic Insulation	Q000000120	Storage Area Dammed and Clean	Minor		Blown in insulation must be contained using damming around storage areas.		Blown insulation is not contained away from storage areas.
Work Quality	Shell Measures	Attic Insulation	Q000000122	Sufficient Ventilation	Major		Sufficient ventilation (net free area) provided per NYS code (MIG 4.1)		Ventilation is insufficient per NYS Code (MIG 4.1). Sufficient ventilation (net free area) must be provided when attic is insulated, regardless of work scope.
Work Quality	Shell Measures	Attic Insulation	Q000000123	Densepack Insulation	Minor		Blown in insulation in restricted or dense packed applications must be 3.5 lbs./cu. ft. for cellulose and 2.2 lbs./cu. ft. for blown fiber that is manufactured for dense pack installation.		
Work Quality	Shell Measures	Attic Insulation	Q000000124	No Air Leakage Paths	Major		This would indicate if a full cavity was insulated. Loose filled cavities would reveal air leakage path ways		
Work Quality	Shell Measures	Attic Insulation	Q000000125	Site Restored to Tidy Condition	Minor				

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Work Quality	Shell Measures	Attic Insulation	Q000000657	Kneewall Insulation	Major		Attic knee walls may be insulated with batt insulation, blown in insulation held in place by a restraining mesh, foam boards, or 2-part spray foam. Batt insulation must be protected from wind washing with an air barrier. Dense-packed cellulose may be deemed sufficient to protect the installation from the effect of wind washing if held in place a restraining mesh. Appropriate materials for wind wash protection are building wrap, extruded poly styrene, insulated structural sheathing, plywood or OSB, or wall board.		Not insulated and/or protected from wind-washing per MIG 3.17
Work Quality	Shell Measures	Basement Air Sealing	Q000000672	Air Sealing Work Completed As Contracted	Major		Air sealing work must be completed as contracted for. If specific areas were mentioned in the contract, they must be completed. If the contract refers to a CFM reduction, work must be completed within 90% of what was contracted for.		Less than 90% of contracted air sealing work was completed. Visual inspection compared to work scope or blower door assisted inspection of air passages.
Work Quality	Shell Measures	Basement Air Sealing	Q000000137	Plumbing Penetrations Sealed	Minor		Plumbing penetrations can be sealed based on their size. Gaps less than 1/4 inch can be sealed with caulk. Gaps between a 1/4 inch and 1 inch can be sealed with 1-part foam and gaps greater than 1 inch should be sealed with a moisture resistant backer and caulk or foam.		
Work Quality	Shell Measures	Basement Air Sealing	Q000000138	Wiring Penetrations Sealed	Minor		Small openings such as wire penetrations that are less than 1 inch in diameter can be sealed using either fire rated caulk or fire block foam.		
Work Quality	Shell Measures	Basement Air Sealing	Q000000139	Chimney Chases Sealed	Minor		If the gap around the chimney is too great for sealant alone, the gap must be closed with non-combustible material, such as metal flashing mechanically fastened to surrounding framing. If the appliance burns solid fuel or oil, the edges and gaps must be sealed using fire-rated caulk meeting ASTM E136. If the appliance burns natural gas or propane, the edges and seams must be sealed with high temperature silicone RTV meeting ASTM C920.		Not completed per MIG 3.6.5. The chase around the chimney is not required to be sealed if it is sealed in the attic (top of chase).
Work Quality	Shell Measures	Basement Air Sealing	Q000000140	Mechanical Chases Sealed	Minor		Large openings between the basement and the 1st floor should be sealed using moisture and fire resistant materials. The gap should be overlapped by at least one inch and securely fastened. The edges and seams should be sealed with caulk or 1-part foam.		Not completed per MIG 3.6.5
Work Quality	Shell Measures	Basement Air Sealing	Q000000142	Basement Access Sealed	Minor				
Work Quality	Shell Measures	Basement Air Sealing	Q000000144	Ground Cover Installed and Sealed	Minor		A vapor barrier must be installed on exposed dirt floors using 6 mil polyethylene (minimum) or equivalent. Installed neatly and covering the entire area, with seams lapped a minimum of 12 inches. Seams sealed with a tape or sealant that provides a permanent, durable seal. Penetrations sealed with foam, acoustic sealant, or compatible roofing mastic. Perimeter edges run 10 inches minimum up wall and sealed to walls with acoustic sealant or roofing mastic. Exceptions made only where access is impossible due to low clearance.	If vapor barrier is not present and/or not contracted but proper installation is not possible. Add inspector note indicating vapor barrier not installed and reason it is not feasible to install.	Vapor barrier is not present and/or not included in contract. Not complete per MIG 3.15.3
Work Quality	Shell Measures	Basement Air Sealing	Q000000145	Windows Sealed	Minor		Basement windows, within the conditioned space, that have gaps between the window frame and the surrounding framing should be sealed using an approved backer (if necessary) and sealant.		If contracted, not completed per MIG 3.6.5
Work Quality	Shell Measures	Basement Air Sealing	Q000000146	Air Barrier Properly Installed on Underside of Floor Framing	Minor				
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000147	Specified R-Value And Quantity Installed	Major		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable		Less than 90% of billed insulation was installed

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Category	Inspection Category	Measure	Question ID	Task Requirement	Deficiency Category	Canned Failure Description	Pass Summary	Conditional Pass Summary	Fail Summary
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000148	Specified Material Type Installed	Major		Installed material matches contract	Installed insulation provides the equal or greater performance than contracted (vapor and thermal barrier, etc.); add conditional pass notes indicating the installed condition.	Installed insulation type does not match the contract or provide equal performance to contracted material(s)
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000150	No Gaps, Voids or Compression	Minor				
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000151	Insulation Contact Warm Surface	Incidental		Insulation should be touching the floor it is keeping warm. No gaps between the insulation and the floor sheathing		
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000152	Vapor Retarder on Correct Surface	Incidental		Vapor retarder should be against the building surface exposed to warmer conditions for the majority of the year		
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000153	Insulation Adequately Supported	Incidental		Must have adequate support, using wire, rods Tyvek, etc.		
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000154	Rigid Board Insulation is Continuous Without Gaps or Voids	Incidental		This includes sealed seams and edges, as well as properly covering exposed edges of foil-faced and FSK board with foil tape. (not required on extruded polystyrene)		
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000155	Densepack Insulation	Minor		Blown in insulation in restricted or dense packed applications must be 3.5 lbs./cu. ft. for cellulose and 2.2 lbs./cu. ft. for blown fiber that is manufactured for dense pack installation.		
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000156	Densepack Insulation: Sheathing Properly Repaired	Incidental		Wood plugs in wood surfaces or plugs placed in rigid insulation board		
Work Quality	Shell Measures	Basement Ceiling Insulation	Q000000157	Site Restored to Tidy Condition	Minor				
Work Quality	Shell Measures	Basement Wall insulation	Q000000158	Specified R-Value And Quantity Installed	Major		At least 90% of insulation was installed and meets or exceeds the R-value specified, if applicable		Less than 90% of billed insulation was installed
Work Quality	Shell Measures	Basement Wall insulation	Q000000159	Specified Material Installed	Major		Installed material matches contract	Installed insulation provides the equal or greater performance than contracted (vapor and thermal barrier, etc.); add conditional pass notes indicating the installed condition.	Installed insulation type does not match the contract or provide equal performance to contracted material(s)
Work Quality	Shell Measures	Basement Wall insulation	Q000000160	Insulation Is Continuous Without Gaps or Voids	Incidental				
Work Quality	Shell Measures	Basement Wall insulation	Q000000161	Seams in Rigid board Insulation are properly sealed	Incidental		Seams should be sealed with 1-part foam or siliconized caulk		
Work Quality	Shell Measures	Basement Wall insulation	Q000000162	Wall Assembly Meets Program Requirements	Major		A drainage plane or waterproof membrane has been installed between the insulation and the basement wall. Wood framing and batt insulation are isolated and do not contact the concrete wall or floor. Non-absorbent insulation has been used. a continuous air barrier has been provided on the warm side of the insulation.		Not installed per MIG 3.15.3
Work Quality	Shell Measures	Basement Wall insulation	Q000000163	Rigid Board Attached Properly	Incidental		Rigid board insulation must be securely connected to concrete walls with approved fasteners that are properly spaced		
Work Quality	Shell Measures	Basement Wall insulation	Q000000164	Thermal Boundary Between Rim Joist and Basement is Continuous	Incidental		The insulation and air barrier material used on the rim and band areas must be connected to the insulation and air barrier used on the foundation wall		
Work Quality	Shell Measures	Basement Wall insulation	Q000000167	Exposed Rigid Foam Board or Spray Foam Has Required Barrier	Major		Exposed rigid foam board or spray foam has a thermal or ignition barrier as required per code		
Work Quality	Shell Measures	Basement Wall insulation	Q000000168	Spray Foam Insulation Is Closed Cell	Incidental		Foam must be high density, and water resistant below grade		
Work Quality	Shell Measures	Exhaust Fan	Q000000685	Contracted Exhaust Fan Installed	Major		Contracted exhaust fan installed per contract and MIG		Not installed or not install per MIG 4.6 & 4.7 for attic ventilation or MIG 4.8 for basements and crawl spaces

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Work Quality	Shell Measures	Exhaust Fan	Q00000686	Venting	Major		Exhaust vents must be vented to either a roof flapper vent, an end wall flapper vent or if neither of these two options is available, to an exhaust vent designed to be installed in a soffit. All exterior flapper vents must be equipped with a back draft damper that works smoothly. Back draft dampers at the fan unit must be removed. Vent outlets must be properly flashed and sealed into roof or siding materials so water will not leak into the assembly.		
Work Quality	Shell Measures	Exhaust Fan	Q00000687	Ducting	Major		Exhaust ducting must be attached to the fan outlet and the flapper vent connector with metal clamps. The duct must be insulated to current code levels for the location it passes through. The duct insulation must have a vapor retarder covering. Hard duct must be supported every 10 feet with 1" metal straps. Flex duct must be supported according to manufacturer's instructions.		
Work Quality	Shell Measures	Exhaust Fan	Q00000688	Fan Specifications are Appropriate	Minor		They must be rated for continuous use and they must have a noise rating of 1.0 sones or less.		
Work Quality	Shell Measures	Exhaust Fan	Q00000689	Installation Quality	Minor		Exhaust fans and 24 hour timers must be installed neatly and according to manufacturer's installation instructions. Gaps between the fan housing and surrounding finishes must be sealed with caulk or 1-part foam.		
Work Quality	Shell Measures	Exhaust Fan	Q00000690	Timer	Minor		Fans must have an on/off switch separate from the timer that occupants will use for spot ventilation.		
Work Quality	Shell Measures	Floor Insulation	Q00000678	Contracted Floor Insulation Installed	Major		At least 90% of insulation was installed and meets or exceeds the R-value specified, if applicable		Less than 90% of billed insulation was installed
Work Quality	Shell Measures	Floor Insulation	Q00000679	Specified Material Type Installed	Major		Installed material matches contract	Installed insulation provides the equal or greater performance than contracted (vapor and thermal barrier, etc.); add conditional pass notes indicating the installed condition.	Installed insulation type does not match the contract or provide equal performance to contracted material(s)
Work Quality	Shell Measures	Floor Insulation	Q00000680	No Air Leakage Paths	Major		IR scans indicate little to no air leakage pathways		
Work Quality	Shell Measures	Floor Insulation	Q00000681	Densepack Insulation	Minor		Blown in insulation in restricted or dense packed applications must be 3.5 lbs./cu. ft. for cellulose and 2.2 lbs./cu. ft. for blown fiber that is manufactured for dense pack installation.		
Work Quality	Shell Measures	Floor Insulation	Q00000682	Site Restored to Tidy Condition	Minor				
Work Quality	Shell Measures	Floor Insulation	Q00000683	Insulation Contact Warm Surface	Major		Insulation should be touching the floor it is keeping warm. No gaps between the insulation and the floor sheathing		
Work Quality	Shell Measures	Living Space Air Sealing	Q00000673	Air Sealing Work Completed As Contracted	Major		Air sealing work must be completed as contracted for. If specific areas were mentioned in the contract, they must be completed. If the contract refers to a CFM reduction, work must be completed within 90% of what was contracted for.		Less than 90% of contracted air sealing work was completed.
Work Quality	Shell Measures	Living Space Air Sealing	Q00000169	Baseboards Caulked	Incidental		Any measure that is visible or used by a customer should have been approved by with the customer before installation. If customer cannot remember whether they were asked or were not present during the installation, rate this as 'Not Inspected.'		
Work Quality	Shell Measures	Living Space Air Sealing	Q00000170	Window and Door Trim Caulked	Incidental		Any measure that is visible or used by a customer should have been approved by with the customer before installation. If customer cannot remember whether they were asked or were not present during the installation, rate this as 'Not Inspected.'		
Work Quality	Shell Measures	Living Space Air Sealing	Q00000171	Plumbing Penetration Sealed	Incidental				
Work Quality	Shell Measures	Living Space Air Sealing	Q00000172	Boots Sealed to Interior Material	Incidental		The register should be removed and the boot sealed to the surrounding air barrier		

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Work Quality	Shell Measures	Living Space Air Sealing	Q000000173	Interior Sheathing Voids Repaired	Incidental		Use a compatible material that can be finished by the homeowner		
Work Quality	Shell Measures	Living Space Air Sealing	Q000000174	Exterior Doors Swept and Weather stripped	Incidental		Doors to the exterior can be weather stripped and swept at the customers request. Doors to the garage should always be weather stripped and swept. Weather stripping should be permanently attached, allow the door to still function as intended and remain flexible in cold weather.		
Work Quality	Shell Measures	Living Space Air Sealing	Q000000175	Doors to Attached Garage Weather stripped	Major		Doors to the attached garage should always be weather stripped and swept. Weather stripping should be high quality, permanently attached, allow the door to function as intended and remain flexible in cold weather.		Fail if the door from the living space to the garage is not weather stripped, also fail if not in contract
Work Quality	Shell Measures	Living Space Air Sealing	Q000000176	Windows Weather Stripped	Incidental		All weather-stripping should be permanently installed with fasteners (tacks, staples, brads, etc.) and should make positive contact between surfaces to prevent air leakage. The weather-stripping should form an airtight seal when the window is closed and latched. A small bead of caulk should be applied as necessary to prevent air leakage behind the weather-stripping.		
Work Quality	Shell Measures	Replacement Doors & Windows	Q000000189	Correct Quantity Installed	Major				
Work Quality	Shell Measures	Replacement Doors & Windows	Q000000190	Correct U-Factor & SHGC Installed	Major		The U-factor and SHGC on the NFRC sticker should be equal to the window specified on the approved contract		
Work Quality	Shell Measures	Replacement Doors & Windows	Q000000191	Window(s) Function Properly	Minor		The window should open, close, tilt-in etc smoothly and easily. When closed and locked the meeting points of the window should be even and square. Blower door testing indicates that the windows have little to no air leakage.		The windows do not function properly and/or there is significant air leakage.
Work Quality	Shell Measures	Replacement Doors & Windows	Q000000192	Window Perimeter Sealed & Insulated	Minor		The rough opening around the window should be air sealed and insulated with an air impervious material such as 1-part foam. If the windows are already trimmed at inspection, this can be verified by spot checking or asking the installer to take photos during installation. Other wise it would be rated as N/I.		
Work Quality	Shell Measures	Replacement Doors & Windows	Q000000194	Exterior Finish Restored	Minor		The exterior siding and trim has been replaced and repaired to the extent that it is indistinguishable from the surrounding finish.		
Work Quality	Shell Measures	Replacement Doors & Windows	Q000000195	Interior Finish Restored	Minor		The exterior siding and trim has been replaced and repaired to the extent that it is indistinguishable from the surrounding finish.		
Work Quality	Shell Measures	Rim Joist Insulation	Q000000659	Specified R-Value And Quantity Installed	Major		At least 90% of insulation was installed and meets or exceeds the R-value specified, if applicable		Less than 90% of contracted insulation was installed
Work Quality	Shell Measures	Rim Joist Insulation	Q000000660	Specified Material Installed	Major		Installed material matches contract	Installed insulation provides the equal or greater performance than contracted (vapor and thermal barrier, etc.); add conditional pass notes indicating the installed condition.	Installed insulation type does not match the contract or provide equal performance to contracted material(s)
Work Quality	Shell Measures	Rim Joist Insulation	Q000000661	Spray Foam Insulation Is Closed Cell	Major				
Work Quality	Shell Measures	Rim Joist Insulation	Q000000662	Site Restored to Tidy Condition	Minor				
Work Quality	Shell Measures	Wall Insulation	Q000000126	Specified R-Value And Quantity Installed	Major		At least 90% of insulation was installed and meets or exceeds the R-value specified, if applicable		Less than 90% of billed insulation was installed
Work Quality	Shell Measures	Wall Insulation	Q000000127	Specified Material Type Installed	Major		Installed material type matches contract	Installed insulation provides the equal or greater performance than contracted (vapor and thermal barrier, etc.); add conditional pass notes indicating the installed condition.	Installed insulation type does not match the contract or provide equal performance to contracted material(s)
Work Quality	Shell Measures	Wall Insulation	Q000000130	No Air Leakage Paths	Major		IR scans indicate little to no air leakage path ways		

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Work Quality	Shell Measures	Wall Insulation	Q000000131	Densepack Insulation	Minor		Blown in insulation in restricted or dense packed applications must be 3.5 lbs./cu. ft. for cellulose and 2.2 lbs./cu. ft. for blown fiber that is manufactured for dense pack installation.		
Work Quality	Shell Measures	Wall Insulation	Q000000132	Drill Holes Patched Properly	Minor		The exterior walls of a home are sided with exterior grade plywood type siding and have been filled with dense pack insulation using a drill and plug installation method. The drill holes are cleanly cut and have been re-sealed neatly with an approved sealant and the holes were drilled in a level line across the wall areas.		All drill and plug applications are not sealed. In situations where the plug is recessed, at least one coat of spackling compound or comparable product must be applied. In situations where the project is provided with full incentives through the Program, all drill and plug interior applications must be spackled to a smooth surface and painted to match the surrounding walls. Exceptions may be made only if agreed to in writing by the customer and approved by the Program.
Work Quality	Shell Measures	Wall Insulation	Q000000133	Drainage Plane Repaired	Major		Drainage plane repaired using appropriate materials (Tyvek, felt, flashing, etc.) after blowing in insulation from the exterior.		
Work Quality	Shell Measures	Wall Insulation	Q000000134	Cladding/Sheathing Properly Repaired	Major		An inspection of the seams on the aluminum or vinyl siding show that all the seam are interlocked. Pulling on the siding shows the siding is firmly attached to the building but can move side to side about an inch. None of the siding is dented or damaged. The single nailed asbestos siding has been re-installed. There are no damaged pieces. The siding is straight and firmly attached to the building.		
Work Quality	Shell Measures	Wall Insulation	Q000000135	Site Restored to Tidy Condition	Minor				
Work Quality	Shell Measures	Wall Insulation	Q000000136	Band Joist Insulated	Major				