

Health and Safety Matrix

Health and Safety Issue	Action/Allowability	Testing	Client Education	Training	Course Satisfying Training Requirement	Allowed?	MFA Prior Approval Required?	Mandatory
Air Conditioning and Heating Systems	“Red tagged”, inoperable, or nonexistent heating system replacement, repair, or installation is allowed where climate conditions warrant, unless prevented by other guidance herein. Air conditioning system replacement, repair, or installation is allowed in homes of at-risk occupants in New Mexico. Medical eligibility for an air conditioner is required for anyone under the age of 60. You must have written documentation from a third-party medical professional.	Make sure systems are present, operable, and performing. Determine presence of at-risk occupants.	Discuss and provide information on appropriate use and maintenance of units and proper disposal of bulk fuel tanks when not removed.	Awareness of guidance.	HVAC/energy Auditor	Yes. In Climate Zone 3, medical eligibility for an air conditioner is required for anyone under the age of 60. You must have written documentation from a third-party medical professional. In all other areas, written documentation from a third-party medical professional is required.	Installation or replacement of Air Conditioners, as a new measure to the NM EnergySmart Program, require prior authorization.	No.
Appliances and Water Heaters	Replacement of water heaters is allowed on a case by case basis. Replacement and installation of other appliances are not allowable health and safety costs. Repair and cleaning are allowed. Also see Air Conditioning and Heating Systems and Combustion Gases.	Determine whether appliances/water heaters are performing safely. Combustion safety testing is required when combustion appliances are present.	Discuss and provide information on appropriate use, maintenance, and disposal of appliances/water heaters.	Awareness of guidance. Conducting diagnostic training.	HVAC/Energy Auditor/QCI	Yes.	No.	No.
Asbestos - in siding, walls, ceilings, etc	Removal of siding is allowed to perform energy conservation measures. All precautions must be taken not to damage siding. Asbestos siding should never be cut or drilled. Recommended, where possible, to insulate through home interior.	Inspect exterior wall surface and subsurface for asbestos siding prior to drilling or cutting.	Inform the client that suspected asbestos siding is present and how precautions will be taken.	Safe practices for siding removal and replacement. How to identify asbestos containing materials.	AHERA Course	Yes.	No.	No.

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Asbestos - in vermiculite	When vermiculite is present, unless testing determines otherwise, take precautionary measures as if it contains asbestos, such as not using blower door tests and utilizing personal air monitoring while in attics. Where blower door tests are performed, it is a best practice to perform pressurization instead of depressurization. Encapsulation by an appropriately trained asbestos control professional is allowed. Removal is not allowed.	Assess whether vermiculite is present. Asbestos Hazard Emergency Response Act of 1986 (AHERA) certified prescriptive sampling is allowed by a certified tester.	Clients should be instructed not to disturb suspected asbestos containing material. Provide asbestos safety information to the client. Formally notify client if test results are positive for asbestos and signed by the client.	Audit training on how to recognize vermiculite. AHERA course for testing. AHERA or other appropriately trained or certified asbestos control professional training for encapsulation.	AHERA Course	Yes.	No.	No.
Asbestos - on pipes, furnaces, other small covered surfaces	Assume asbestos is present in covering materials. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. Removal may be allowed by an AHERA asbestos control professional on a case by case basis.	AHERA testing is allowed by a certified tester.	Clients should be instructed not to disturb suspected asbestos containing material. Provide asbestos safety information to the client.	AHERA course for testing and asbestos control professional training for abatement. How to identify asbestos containing materials.	AHERA Course	Yes.	No.	No.
Biologicals and Unsanitary Conditions - odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.	Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Addressing bacteria and viruses is not an allowable cost. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers. Also see Mold and Moisture guidance below.	Sensory inspection.	Inform client of observed conditions. Provide information on how to maintain a sanitary home and steps to correct deferral conditions.	How to recognize conditions and when to defer. Worker safety when coming in contact these conditions.	Auditor	Yes.	No.	No.
Building Structure and Roofing	Building rehabilitation is beyond the scope of the Weatherization Assistance Program. Homes with conditions that require more than incidental repair should be deferred. See Mold and Moisture guidance below.	Visual inspection. Ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection.	Notify client of structurally compromised areas.	How to identify structural and roofing issues.	Auditor or separate module	No.	N/A	N/A

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Code Compliance	Correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where “red tagged” health and safety conditions exist that cannot be corrected under this guidance should be deferred.	Visual inspection. Local code enforcement inspections.	Inform client of observed code compliance issues.	Code Compliance	Code Compliance for Auditors	Yes.	No.	Yes.
Combustion Gases	Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem.	Combustion safety testing is required when combustion appliances are present. Inspect venting of combustion appliances and confirm adequate clearances. Test naturally drafting appliances for draft and spillage under worst case conditions before and after air tightening. Inspect cooking burners for operability and flame quality.	Provide client with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.	How to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measured.	HVAC/Energy Auditor	Yes.	No.	Yes.
Drainage - gutters, down spouts, extensions, flashing, sump pumps, landscape, etc.	Major drainage issues are beyond the scope of the Weatherization Assistance Program. Homes with conditions that may create a serious health concern that require more than incidental repair should be deferred. See Mold and Moisture guidance below.	Visual inspection.	Importance of cleaning and maintaining drainage systems. Information on proper landscape design.	How to recognize drainage issues.	Energy Auditor	Yes.	Yes. Drainage measures, as a new measure to the NM EnergySmart Program, require prior authorization.	No.
Electrical, other than Knob-and-Tube Wiring	Minor electrical repairs are allowed where health or safety of the occupant is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures.	Visual inspection. Voltage drop and voltage detection testing are allowed.	Provide information on overloading circuits, electrical safety/risks.	How to identify electrical hazards. Local code compliance.	Code for energy auditors/Crew Leader	Yes.	No.	No.

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Electrical, Knob-and-Tube Wiring	Minor upgrades and repairs necessary for weatherization measures and where the health or safety of the occupant is at risk are allowed. Must provide sufficient over-current protection prior to insulating over knob-and-tube wiring.	Inspect for presence and condition of knob-and-tube wiring. Check for alterations that may create an electrical hazard. Voltage drop and voltage detection testing are allowed.	Provide information to client on over-current protection, overloading circuits, basic electrical safety/risks.	How to identify electrical hazards. Local code compliance.	Code for energy auditors	Yes.	No.	No.
Fire Hazards	Correction of fire hazards is allowed when necessary to safely perform weatherization.	Check for fire hazards in the home during the audit and while performing weatherization.	Inform client of observed hazards.	How to identify fire hazards.	OSHA 10+	Yes.	Yes. Fire Hazard correction measures, as a new measure to the NM EnergySmart Program, require prior authorization.	No.
Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants	Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred.	Sensory inspection.	Inform client of observed condition and associated risks. Provide client written materials on safety and proper disposal of household pollutants.	How to recognize potential hazards and when removal is necessary.	OSHA 10+	Yes.	Yes. Removal of air pollutant measures, as a new measure to the NM EnergySmart Program, require prior authorization.	No.
Hantavirus Respiratory Distress Syndrome	To minimize exposure to the hantavirus and to dispose of dead rodents, droppings or contaminated material must adhere to the following precautions:	Visual assessment is required	Provide information on hantavirus risks.	Awareness of guidance.	OSHA 10+	Yes.	No.	Yes.

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Injury Prevention of Occupants and Weatherization Workers - Measures such as repairing stairs and replacing handrails.	Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed.	Observe if dangers are present that would prevent weatherization.	Inform client of observed hazards and associated risks.	Awareness of potential hazards.	OSHA 10+	Yes.	Yes. Injury prevention measures, as a new measure to the NM EnergySmart Program, require prior authorization.	No.
Lead Based Paint	Follow EPA's Lead; Renovation, Repair and Painting Program (RRP). In addition to RRP, Weatherization requires all weatherization crews working in pre-1978 housing to be trained in Lead Safe Weatherization (LSW). Deferral is required when the extent would potentially create further health and safety hazards. and condition of lead-based paint in the house	Testing is allowed. Job site set up and cleaning verification is required by a Certified Renovator.	Follow RRP requirements.	All weatherization crews working on pre-1978 homes must receive LSW training and be accompanied by an EPA Certified Renovator. Grantee Monitors/Inspectors must be Certified Renovators and receive LSW training.	RRP, Lead Dust Technician and LSW	Yes.	No.	Yes.
Mold and Moisture	Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures. Where severe Mold and Moisture issues cannot be addressed, deferral is required.	Visual assessment is required and diagnostics such as moisture meters are recommended pre- and prior to final inspection. Mold testing is not an allowable cost.	Provide client notification and disclaimer on mold and moisture awareness.	National curriculum on mold and moisture or equivalent.	Auditor/QCI	Yes.	No.	No.

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Occupant Preexisting or Potential Health Conditions	When a person's health may be at risk and/or the work activities could constitute a health or safety hazard, the occupant at risk will be required to take appropriate action based on severity of risk. Temporary relocation of at-risk occupants may be allowed on a case by case basis. Failure or the inability to take appropriate actions must result in deferral.	Require occupant to reveal known or suspected health concerns as part of initial application for weatherization. Screen occupants again during audit.	Provide client information of any known risks. Provide worker contact information so client can inform of any issues.	How to assess occupant preexisting conditions and determining what action to take if the home is not deferred. Awareness of potential hazards.	Develop Module	Yes.	Yes.	No.
Occupational Safety and Health Administration (OSHA) and Crew Safety	Workers must follow OSHA standards and Material Safety Data Sheets (MSDS) and take precautions to ensure the health and safety of themselves and other workers. MSDS must be posted wherever workers may be exposed to hazardous materials.	Grantees must perform assessments to determine if crews are utilizing safe work practices.	Not applicable.	Use and importance of personal protection equipment. OSHA 10 hour training is required for all workers. OSHA 30 hour training is required for crew leaders.	OSHA 10 + and OSHA 30, Confined Space	Yes.	No.	Yes.
Pests	Pest removal is allowed only where infestation would prevent weatherization. Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses health and safety concern for workers. Screening of windows and points of access is allowed to prevent intrusion.	Assessment of presence and degree of infestation and risk to worker.	Inform client of observed condition and associated risks.	How to assess presence and degree of infestation, associated risks, and need for deferral.	Auditor Module/Crew Chief	Yes.	Yes. Pest Removal, as a new measure to the NM EnergySmart Program, requires prior authorization.	No.
Radon/Vapor Barrier	Whenever site conditions permit, exposed dirt must be covered with a vapor barrier except for mobile homes. In homes where radon may be present, precautions should be taken to reduce the likeliness of making radon issues worse.	Testing is allowed in locations with high radon potential. These include Rio Arriba, Taos, Colfax, Mora, San Miguel, Santa Fe and Bernalillo Counties	Provide client with EPA consumer's guide to radon.	What is it, how it occurs. What factors may make radon worse. Weatherization measures that may be helpful. Vapor barrier installation.	Auditor/Installer/Crew Leader/QCI	Yes.	No	Yes.

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Refrigerant	Replaced air conditioners and heat pumps must be properly disposed of and the refrigerant reclaimed in compliance with the Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93. The vendor, demanufacturing center or other entity recovering the refrigerant must possess EPA-approved Section608 type I, II or III universal certification.	EPA testing protocols.	Clients should not disturb refrigerant.	EPA-approved section 608 type I or universal certification.	HVAC	Yes.	No.	Yes.
Smoke, Carbon Monoxide Detectors, and Fire Extinguishers	Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable. Replacement of operable smoke/CO detectors is not an allowable cost. Providing fire extinguishers is allowed only when solid fuel is present.	Check for operation.	Provide client with verbal and written information on use of smoke/CO detectors and fire extinguishers where allowed.	Where to install detectors. Local code compliance.	Code for Energy Auditors/Installers/QCI	Yes.	No.	Yes.
Solid Fuel Heating (Wood Stoves, etc.)	Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed.	Required inspection of chimney and flue and combustion appliance zone depressurization.	Provide safety information including recognize depressurization.	How to perform CAZ depressurization test and proper inspection.	HVAC/Energy Auditor	Yes.	No.	No.
Space Heaters, Stand Alone Electric	Repair, replacement, or installation is not allowed. Removal is recommended.	Check circuitry to ensure adequate power supply for existing space heaters.	Inform client of hazards and collect a signed waiver if removal is not allowed.	Awareness of guidance.	HVAC/Energy Auditor	No.	N/A	N/A
Space Heaters, Unvented Combustion	Removal is required, except as secondary heat where the unit conforms to ANSI Z21.11.2. Units that do not meet ANSI Z21.11.2 must be removed prior to weatherization but may remain until a replacement heating system is in place.	Testing for air-free carbon monoxide (CO) is allowed. Check units for ANSI Z21.11.2 label.	Inform client of dangers of unvented space heaters - CO, moisture, NO2, CO can be dangerous even if CO alarm does not sound.	How to perform air-free CO testing. Understanding the dangers of unvented space heaters.	HVAC/Energy Auditor	Yes.	No.	Yes.

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Space Heaters, Vented Combustion	Should be treated as furnaces.	Venting should be tested consistent with furnaces.	Not applicable.	Proper testing methods for safe operation (draft and CO) should be conducted and for steady state efficiency if possible.	HVAC/Auditor/QCI	Yes.	No.	No.
Spray Polyurethane	Replaced air conditioners and heat pumps must be properly disposed of and the refrigerant reclaimed in compliance with the Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93. The vendor, demanufacturing center or other entity recovering the refrigerant must possess EPA-approved Section608 type I, II or III universal certification. Use EPA recommendations (available online at: http://www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html) when working within the conditioned space or when SPF fumes become evident within the conditioned space. When working outside the building envelope, isolate the area where foam will be applied, take precautions so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home.	Check for penetrations in the building envelope. Sensory inspection inside the home for fumes during foam application.	Provide notification to the client of plans to use two- part foam and the precautions that may be necessary.	Training on use of various products with specification for each application type. MSDS sheets. Temperature sensitivity. Installer fundamentals/mobile home basics.	Installer/Crew Leader	Yes.	No.	Yes.

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Ventilation	2010 (or most current) ASHRAE 62.2-2013 is required to be met to the fullest extent possible, when performing weatherization activity. Implementation is not required where acceptable indoor air quality already exists as defined by ASHRAE 62.2-2013. Existing fans and blower systems should be updated if not adequate.	ASHRAE 62.2 -2013 evaluation, fan flow, and follow up testing are required to ensure compliance.	Provide client with information on function, use, and maintenance of ventilation system and components. Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.	ASHRAE 62.2 - 2013 training required including proper sizing, evaluation of existing and new systems, depressurization tightness limits, critical air zones, etc.	Auditor/Crew Chief/QCI	Yes. Compliance with ASHRAE 62.2 -2013 is mandatory	No.	Yes.
Window and Door Replacement, Window Guards	Replacement, repair, or installation is not an allowable health and safety cost but may be allowed as an incidental repair or an efficiency measure if cost justified.	Not applicable	Provide information on lead risks.	Awareness of guidance.	Auditor/Crew Chief	No.	N/A	N/A