South Carolina Weatherization Health and Safety Plan

1.0-GENERAL INFORMATION

Additional information that does not fit neatly in one of the other sections of this document.

The maximum amount of DOE WAP funds to be spent on health and safety per dwelling unit is \$1,500.

2.0-BUDGETING

Grantees are encouraged to budget H&S costs as a separate category and, thereby, exclude such costs from the Average Cost Per Unit (ACPU) cost limitation. This separate category also allows these costs to be isolated from energy efficiency costs in evaluations. H&S costs that are budgeted and reported under the Program Operations category rather than the H&S category, must be included in the calculation of the ACPU and cost-justified through the Grantee's Department of Energy (DOE) programapproved energy audit tool.

Select which option used below.

Separate H&S Budget 🗹

Contained in Program Operations

3.0 – H&S EXPENDITURE LIMITS

Pursuant to <u>10 CFR 440.16(h)</u>, Grantees must establish H&S expenditure limits for their Program and provide justification for limits by explaining the basis and related historical H&S expenditures. DOE acknowledges that it may be necessary for Grantees to deviate from historical expenditures when certain circumstances arise (e.g., funding source changes).

<u>10 CFR 440.16(h)(2)</u> dictates that these limits must be expressed as a percentage of the ACPU. To calculate this percentage, use the following formula:

H&S Budget Amount

Total Average H&S Cost per Unit = -----

Program Operations Budget Amount

For example, if the ACPU is \$5,000 and a Grantee's Program expends an average of \$750 per dwelling on energy-related H&S measures, the Total Average H&S Cost per Unit would equal 15 percent. DOE acknowledges that this percentage may vary significantly between Grantees due to different geographical areas and depending upon the availability of other funding sources, resource availability, etc. Low percentages should include a statement of what other funding supports H&S costs, while larger percentages will require greater justification and relevant historical support.

15 percent is not a maximum limit on H&S expenditures. DOE will conduct a secondary level of review on H&S Plans with a Grantee request of more than 15 percent of Program Operations used for H&S purposes. **DOE strongly encourages using the table below in developing justification for the requested H&S budget amount.** In accordance with <u>10 CFR 440.18(d)(15)</u>, these funds are to be expended by the Program in direct weatherization activities, "of which is necessary before, or because of, installation of weatherization materials." This same section of the regulation excludes the H&S costs from the ACPU limitation if H&S costs are budgeted separately.

DOE recommends reviewing recent budget requests and compare those to actual H&S expenditures to see if previous budget estimates have been accurate. The resulting Total Average H&S Cost per Unit multiplied by the Grantee's production estimate in the Annual File <u>should</u> correlate to the H&S budget amount listed in the Grantee's annual plan.

H&S expenditure limits and justification explaining the basis for setting the limits.

The budget request for Health and Safety for Program Year 2024 is \$248,154. This represents 16% of program operations \$1,568,347. This is an increase from the amount requested in Program Year 2023 which was roughly 10% of program operations. South Carolina is requesting this increase as we are proposing to increase the maximum amount of DOE funds that can be spent on Health and Safety measures from \$1,050 per dwelling unit to \$1,500 per dwelling unit to alleviate the increased cost of Health and Safety materials.

Utilizing the spreadsheet embedded below, provide a full list of H&S measures using historical data from your program, including average cost, and frequency rate. If installing more than a single instance of one measure in a unit (e.g., multiple CO alarms), Grantees may aggregate costs so that frequency does not exceed 100%, or enter a justification into the measure column, which explains why that measure has a frequency rate of over 100%. The spreadsheet will auto calculate your expected Total Average H&S Cost per Unit.

Instructions: Double-click icon directly below to open, view and edit Measure Matrix Spreadsheet. Complete the spreadsheet by entering the required information. To save, close the spreadsheet and it will save to this document.



Measure Matrix Final.xlsx

4.0 - INCIDENTAL REPAIR MEASURES

Any measures that could be identified as Health and Safety which the Grantee chooses to instead identify and treat as an Incidental Repair Measure (IRM), must be implemented consistently throughout the Grantee's weatherization program. The measure must fit the regulatory definition of an IRM and be cost justified along with the associated Energy Conservation Measure (ECM) and/or package of measures. <u>10 CFR 440.3</u> defines Incidental Repairs as, "those repairs necessary for the effective performance or preservation of weatherization materials."

H&S measures identified and treated as IRMs within your Program.

Any measure referenced in conjunction with an Energy Conservation Measure (ECM) will be considered an Incidental Repair Measure (IRM). ECMs are defined as measures applied to a dwelling that improve the energy efficiency of the dwelling. If an auditor deems a repair to be necessary and it is not associated with an ECM, it may be considered a Health and Safety Measure)provided it is allowed by the approved Health and Safety Plan). Incidental Repairs are those repairs necessary for the effective performance or preservation of weatherization materials. Such repairs include but are not limited to the framing or repair of windows and/or doors that could not be caulked or weather-stripped and the provision of protective materials, such as paint, to seal installed materials. South Carolina will adhere to WPN 19-5 in determining when measures meet the criteria to be considered IRMs. Repairing a small roof leak will be charged to Health and Safety when no attic insulation is installed, but will be charged to Incidental Repair Measures when attic insulation is installed.

Vapor barriers will always be installed as Health and Safety measures.

The maximum amount of spending with DOE funds for incidental repairs per dwelling is \$500. LWAP funds can be used to supplement DOE funds.

The total cost of all IRMs, not to exceed \$500 in DOE funding, is added to the cost of the package of weatherization measures to calculate the whole unit Savings to Investment Ratio (SIR).

There is no cap on LWAP funds that can be used for IRMs, but the cumulative SIR (which includes the IRMs) must be 1.0 or higher to spend DOE funds on the dwelling.

5.0 – OCCUPANT PRE-EXISTING OR POTENTIAL HEALTH CONDITIONS AND HAZARD IDENTIFICATION AND NOTIFICATION FORM(S)

Grantees must develop a written policy that includes, at a minimum, the following documentation relating to H&S Plan implementation and maintain signed copies in each client file. <u>Each notification must include</u> the name and address of the occupant(s) (and landlord if applicable), the date and signature of the occupant(s) (and landlord if applicable) indicating that they understand and have been informed of their rights and options, and finally the signature of the Subgrantee personnel collecting the information.

Required topics are:

- > Occupant Pre-existing or Potential Health Condition Screening
 - Provides documentation that allows occupant(s) to self-report known or suspected health concerns as part of initial application for weatherization, during the energy audit, or other part of the weatherization process as specified. Must minimally contain the following:
 - Any known risks associated with the measures and materials being installed
 - Subgrantee point of contact information for occupant(s)
 - Date of screening
- Hazard Identification Notification
 - Provides documentation that the occupant and landlord (if applicable), have been informed of any potential hazards identified during the energy audit or intake process. Must minimally contain the following:
 - Date(s) of the energy audit/assessment and when the occupant(s) (and landlord, if applicable) was informed of a potential H&S issue
 - A clear description of the problem, including any testing results
 - A statement indicating if, or when weatherization could continue

Radon Informed Consent Form

- Provides documentation that the occupant(s) (and landlord if applicable) have been informed of any potential hazards associated with radon in weatherized dwellings. The form must minimally contain the following:
 - An explanation on the potential small risk of increasing radon levels when building tightness is improved. This is based on the results of the <u>Buildings Assessment of Radon Reduction Interventions with Energy</u> retrofits <u>Expansion Study (The BEX Study)</u>
 - A list of precautionary measures WAP will install based on EPA Healthy Indoor Environment Protocols.
 - Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety.

Procedure for soliciting occupants' health and safety concerns related to components of their homes

During the intake process, subgrantees interview applicants regarding common health and safety issues in homes including moisture problems, mold and mildew, and lead-based paint. The subgrantee gives the applicant an opportunity to address any unique health and safety issues. All health and safety information is captured on Form 100 (Client Interview Form).

Procedure for determining whether occupants suffer from health conditions which may be negatively impacted by the act of weatherizing their dwelling

During the energy audit, subgrantees conduct a thorough examination of the dwelling for potential energy efficiency measures and health and safety issues. Once the audit is complete, subgrantees explain the measures that will be installed. In addition, the client receives three EPA documents at this point in the process:

- > A Brief Guide to Mold, Moisture, and Your Home
- A Citizen's Guide to Radon
- > The Lead-Safe Certified Guide to Renovate Right

The client is asked to complete three forms indicating they received and reviewed the EPA documents. At this time, the subgrantee addresses any concerns or questions the client has with the EPA documents or weatherization measures.

Procedure for addressing potential health concerns including pre-existing health conditions when they are identified

If any health concerns are identified, the subgrantee may need to defer the home until the concerns can be addressed. If a deferral is required, the subgrantee will complete the Deferral of Service Notification (Form 107). This form outlines the specific issues that must be addressed before weatherization work can begin and how to notify the subgrantee when they are addressed.

Location where forms have been uploaded/submitted		
Separate attachment to SF424 🗹	Separate attachment to H&S Plan 🛛	

6.0 – HEALTH AND SAFETY CATEGORIES

For each of the following H&S categories identified by DOE in the following tables, follow the directions below.

- Any section that is "Required" below must be explicitly detailed in the H&S Plan regardless of funding source used. If the Grantee checks the box for "Concurrence with DOE Guidance" the contents of the box may be left as it exists or reference the section/location within Grantee Policy and Procedure manual that contains language or insert Grantee specific language. If the "Alternative Guidance" box is checked, the Grantee must provide that alternative guidance in the box.
 - If a Grantee is proposing an alternative action/allowability for a "Required" item, the alternative requires comprehensive explanation of how it meets the intent of the DOE program notice.
 - If a "Required" item/category will not be addressed with any funding source and will always result in deferral, the H&S Plan must state that.
- Any section that is "Allowable" below must be detailed only if DOE WAP funds are used to implement the measures. If the Grantee uses DOE funds for any "Allowable" activities from the Table of Issues then they must be described here in detail, including defining "minor", "major", "limited", "case-by-case", and "at-risk" if the term is applied. If you only check the box "Allowed with Alternative Funds" then no additional information is required.
- Any section that is "Prohibited" below may not be addressed with DOE WAP H&S funds and does not need to be specifically addressed in the H&S Plan. The Grantee simply needs to check the "Concur with DOE guidance" box and indicate if the condition will result in deferral/referral.
- The Grantee H&S Plan may address additional H&S hazards specific to their program that are not included in the Table of Issues. If a Grantee chooses to include additional measures as DOE WAP funded H&S costs, the H&S Plan must include details pertaining to the measures allowed, testing required, and client education for these specific hazards.
- All required "Testing/Inspection" related items must be documented in the client file to verify completion and results.

6.1 – Air-Conditioning, Heating Systems, and Combustion Appliances

Actions				
Concur with DOE Guidance 🗹	Alternative Guidance 🗹		Results in Deferral/Referral 🛛	
DOE WAP H&S Funds 🗹			Alternative Funds 🗹	

- Replace, repair, or install primary heating systems when existing primary heating systems are unsafe, inoperable, or nonexistent. No home may be left without a safe primary heating system after weatherization where climate conditions require heating (i.e., all climate zones except zone 1 as defined by ASHRAE). If unable to meet this requirement, deferral is required.
- No DOE-funded weatherization work is permitted if the completed dwelling unit will be heated with an unvented combustion space heater as the primary heat source. The primary heat source must be replaced with a vented unit prior to or by weatherization. The replacement unit must be sized to heat the entire dwelling unit.
- Unsafe secondary heating units, including space heaters, must be repaired, or removed and disposed of, or deferral is required. Secondary unvented space heaters are considered unsafe if they:
 - are not listed and labeled as meeting ANSI Z21.11.2;
 - have an input rating of more than 40,000 BTU/hour;
 - \circ are in a bedroom and have an input rating of more than 10,000 BTU/hour;
 - are in a bathroom and have an input rating of more than 6,000 BTU/hour;
 - are operating in an unsafe manner (e.g., high carbon monoxide (CO) readings, too close to combustible materials, lack sufficient combustion air volume); or
 - are not permitted by the Authority Having Jurisdiction (AHJ).
- DOE WAP Grantees and Subgrantees must comply with the Manufactured Home Construction and Safety Standards which mandate that:
 - All fuel-burning appliances in manufactured homes, except ranges, ovens, illuminating appliances, clothes dryers, solid fuel-burning fireplaces, and solid fuel-burning stoves, must be installed to provide for the complete separation of the combustion system from the interior atmosphere of the manufactured home (i.e., to draw their combustion air from outside) and be vented to outside the dwelling.
 - All appliances installed by or left in place after weatherization in manufactured homes must meet these standards, including secondary heating sources. If an occupant will not allow the removal of an unsafe combustion appliance from the home, deferral is required.
 - Repair or replace combustion gas venting to ensure proper combustion gas venting to outside the dwelling for all combustion appliances, including but not limited to gas dryers, refrigerators, furnaces, vented space heaters, and water heaters.
- If weatherization installs an appliance that is vented into a masonry chimney, the chimney must be lined in compliance with the International Fuel Gas Code (IFGC) or local AHJ if more stringent.
- Install adequate combustion air for all combustion appliances left after weatherization.
- If permits are required for heating/cooling system work, they must be secured and are a program operation cost (if the installation is an ECM) or may be included in the H&S cost (if installed as a H&S measure).
- If unsafe conditions relating to existing combustion appliances require remediation to safely perform weatherization and cannot be remedied by repair or tuning, replacement is an allowable H&S measure unless prevented by other guidance herein.
- Documentation justifying the replacement with a cost comparison between replacement and repair must be maintained in the client file.

Allowable Actions			
Allowed with DOE WAP H&S Funds Allowed with Alternative Funds			

- Subgrantees are to use alternative funds (LWAP Health and Safety) to pay for air conditioner, heat pump, or HVAC repairs or replacement. This may also include duct and register repair or replacement.
- Prior to replacing an air conditioner, heat pump, or HVAC system, a Manual J calculation must be performed.

	ed Actions			
Concur with DOE Guidance 🗹				
Using DOE WAP H&S funds for replacement or installation of secondary heat sources is prohibited.				
Required Testing/Inspection				
Concur with DOE Guidance 🗹 Alternative Guidance 🗆				
 Verify that primary heating systems are present, operable 				
 Conduct combustion appliance testing and visual inspective venting per ANSI/BPI-1200-S-2017 Standard Practice for Based on the second se				
 Depressurization and spillage testing is required for all Category 1 appliances pre- and post-weatherization and before leaving the home on any day when work has been done that could affect draft (e.g., air or duct sealing, adding exhaust ventilation). 				
 CO testing is required for all combustion appliances, regard Verify proper clearances for all combustion venting types. 				
 Visually inspect the entirety of solid fuel-fired appliance installations (e.g., wood stoves, coal stoves, pellet stoves, fireplaces) including the venting system to ensure it adheres to the applicable code or local authority having jurisdiction. Appliances must be inspected pre- and post-weatherization. 				
 propose testing policies and limits. If the Grantee does no operational, the home cannot be weatherized unless the Safety inspections related to space heaters, fireplaces, an 	ying safe operation of fireplaces and woodstoves, Grantees car ot propose a policy and fireplaces or woodstoves are to be left vent meets national or local codes.			
Grantee Combustion	Testing Action Levels			
Refer to the Retrofitting South Carolina Weatherization Field	Guide, 2.0201.01 Combustion Appliance Zone (CAZ) Testing.			
Grantee Woodstove & Fireplace inspecti	on/testing policy including actions/limits			
Concur with DOE Guidance 🗹	Alternative Guidance 🛛			
ireplace or woodstove venting that will be left operational after v r the home must be deferred.	weatherization must meet current local or national standards			
	pant Education			
Required Occu				
	Alternative Guidance 🛛			
Required Occu				
Required Occu Concur with DOE Guidance ☑	Alternative Guidance 🛛			
Required Occu Concur with DOE Guidance ☑ • Appropriate use and maintenance of units.	Alternative Guidance D			

6.2 – Asbestos (Confirmed and/or Presumed Asbestos Containing Material)				
Required Actions				
Concur with DOE Guidance 🗹	Alternative Guidance Results in Deferral/Referral			
DOE WAP H&S Funds		Alternative Funds 🗹		

- When suspected friable Asbestos Containing Materials (ACM) are present, including vermiculite, assume they contain asbestos and take precautionary measures to prevent disturbing it during the audit and work (unless testing determines otherwise).
- Grantees must have written policy included in their H&S plan for:
 - Identifying and managing suspected ACM that provides for reasonable and necessary precautions to prevent asbestos contamination in the home.
 - Addressing blower door testing where suspected friable ACM is present (as defined by EPA), including vermiculite.

Grantee ACM policy

- Assume asbestos is present in suspect covering materials.
- When suspected friable ACM is present, defer the dwelling until testing determines otherwise.
- No blower door testing is allowed if there is suspected friable ACM present.
- The removal of ACM is not an allowable cost.
- When deferral is necessary due to suspected asbestos, occupant must provide documentation that a certified professional certifies the materials are free of asbestos or has performed remediation before work can continue.

Grantee Blower Door Testing Policy When Suspected ACM Exists

When friable Asbestos Containing Material (ACM) is suspected, in the home, the blower door test will not be conducted. The house will be deferred until the customer can provide documentation that a certified professional certifies the suspected material is either free of asbestos or has been properly remediated

Allowable Actions		
Allowed with DOE WAP H&S Funds 🗹	Allowed with Alternative Funds 🗹	

- Temporary removal and reinstallation of ACM siding to perform an ECM (e.g., wall insulation).
- Removal of asbestos 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. Known asbestos containing building components shall not be handled during weatherization work in a way which could cause the transmission of asbestos dust into the air.

	Prohibite	ed Actions		
	Concur with D	DE Guidance 🗹		
Using DOE WAP H&S funds for general abat	ement/removal/or re	placement of asbestos	siding, thermal system insulation (TSI) or	
Transite, or vermiculite is prohibited.				
	Required Test	ing/Inspection		
Concur with DOE Guidance 🗹 Alternative Guidance 🗆 Results in Deferral/Referral 🗆				
DOE WAP H&S Funds 🗹 Alternative Funds 🗹			Alternative Funds 🗹	
• Visually inspect all surfaces (i.e., walls, floors, ceilings, roofs) for suspected ACM prior to drilling or cutting.				
Assume asbestos is present in suspect materials unless testing reveals otherwise.				
	Allowable Tes	ting/Inspection		
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹				
 Sample collection and testing of sus (AHERA) certified tester. Baseline indoor environmental asbe 		ed by an Asbestos Haza	ard Emergency Response Act of 1986	
	Required Occu	pant Education		
Concur with DOE Guidance 🗹 Alternative Guidance 🛛				

- Formally notify the occupant, and landlord if applicable, in writing:
 - of suspected ACMs that are present and what precautions will be taken to ensure the occupants' and workers' safety during weatherization;
 - of results if testing was performed;
 - o not to disturb suspected ACM; and
 - when deferral is necessary due to asbestos, occupant, or landlord if applicable, must provide documentation that a certified professional performed the remediation before work can continue.

6.3 – Biologicals and Unsanitary Conditions **Required Actions** Concur with DOE Guidance ☑ Alternative Guidance Results in Deferral/Referral ☑ DOE WAP H&S Funds ☑ Alternative Funds ☑ Deferral where conditions (odors, bacteria, raw sewage, rotting wood, etc.) in the home pose a health risk to occupants and/or weatherization workers or may be worsened by weatherization activities (e.g., air sealing) and will not be resolved by weatherization. Allowed Actions Allowed with DOE WAP H&S Funds ☑ Allowed with Alternative Funds ☑ Limited 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 conditions in the home pose a health risk to occupants and/or those installing weatherization measures. See Mold and Moisture section for more information. **Required Testing/Inspection** Concur with DOE Guidance Alternative Guidance Results in Deferral/Referral □ Alternative Funds DOE WAP H&S Funds ☑ Sensory inspection of interior, exterior, attics, and subspaces of the dwelling. **Prohibited Testing/Inspection** Concur with DOE Guidance ☑ DOE WAP H&S funds may not be used for testing of materials for biological contaminants. **Required Occupant Education** Alternative Guidance Concur with DOE Guidance ☑ Inform client in writing of observed conditions. Provide information on how to maintain a sanitary home. When deferral is necessary, complete Deferral Form 107 with description of conditions that must be met for weatherization to commence.

6.4 – Building Structure and Roofing (e.g., roofing, wall, foundation)			
Allowable Actions			
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹			
Incidental and minor repairs are allowable. Otherwise, dwelling will be deferred until repairs can be completed by the homeowner or through other funding sources (Weatherization Readiness Funds or Dominion Energy Settlement Funds).			

Funds will be used for incidental repairs of building structure and roofing. For example, if no attic insulation is installed and the repair cannot be categorized as an Incidental Repair Measure (IRM) per DOE guidance, the repair may be completed under Health and Safety.

Dwellings with conditions that require more than these incidental repairs will be deferred.

	Prohibite	d Actions		
	Concur with DC	DE Guidance 🗹		
Using DOE WAP H&S funds for <i>major</i> repairs	s as defined by Grante	e's H&S Plan is prohi	bited.	
Using DOE WAP H&S funds for building reha	bilitation is prohibited	ł.		
	Define "ma	jor" repairs		
Major repairs are any improvements or rend	ovations that exceed \$	1000.		
	Required Test	ing/Inspection		
Concur with DOE Guidance 🗹	Alternative (Guidance 🛛	Results in Deferral/Referral 🛛	
DOE WAP H&S Funds 🗹 Alternative Funds 🗹				
Visual inspection of building structure and roofing for damages that compromise building durability and to verify that portions of				
the home where weatherization will occur are safe for entry and performance of assessments, work, and inspections.				
Allowable Testing/Inspection				
Allowed with DOE WAP H&S Funds Allowed with Alternative Funds				
N/A				
Prohibited Testing/Inspection				
Concur with DOE Guidance 🗹				
Using DOE WAP H&S funds for any testing/evaluation of structural materials by a third-party is prohibited.				
Required Occupant Education				
Concur with DOE Guidance	\square		Alternative Guidance 🛛	
Notify occupant in writing of structurally compromised areas.				

6.5 – Code Compliance				
Allowable Actions				
Allowed with DOE WAP H&S F	Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹			
Correction of preexisting build code compliance issues is not an allowable cost except when triggered by weatherization measures being installed in a specific room or area of the home. When correction of preexisting code compliance issue(s) is related to an installed weatherization measure(s), cite specific code requirements with reference to the weatherization measure(s) that are related to the code compliance issue. Include this information in the client file. LWAP funds shall be utilized to address this health and safety category.				
	Prohibite	ed Actions		
	Concur with D	OE Guidance ☑		
 Using DOE WAP H&S funds for correction of preexisting code compliance issues not directly related to the installation of specific weatherization measures in the home is prohibited. Using DOE WAP funds for work on condemned properties and properties where H&S conditions exist that cannot be corrected under this guidance is prohibited. 				
Required Testing/Inspection				
Concur with DOE Guidance 🗹	Alternative	Guidance 🛛	Results in Deferral/Referral	
DOE WAP H&S Funds	DOE WAP H&S Funds		Alternative Funds	
Visual inspection.				
Allowable Testing/Inspection				
Allowed with DOE WAP H&S F	Allowed with DOE WAP H&S Funds			
N/A				
	Required Occupant Education			
Concur with DOE Guidance 🗹 Alternative Guidance 🗆				

Inform occupant in writing of observed code compliance issues when it results in a deferral.

6.6 – Electrical				
Rec	uired Actions			
Concur with DOE Guidance 🗹 🛛 🛛 Alterna	ance 🗹 Alternative Guidance 🗆 Results in Deferral/Referral 🗆			
DOE WAP H&S Funds 🗹		Alternative Funds 🗹		
Provide sufficient over-current protection and damming pric	r to insulating building cor	nponents containing knob and tube wiring,		
as required by the AHJ.				
	wable Actions			
Allowed with DOE WAP H&S Funds 🗹	Allov	ved with Alternative Funds 🗹		
Electrical repairs will be addressed as IRMs if related ECMs are installed (for example repairing wiring in an attic after insulation is blown). Otherwise, Health and Safety funds may be used to address minor electrical issues/repairs. Minor electrical repairs include installing junction boxes in attics and in crawlspaces, repairing wall receptacles, repairing switches and defective lighting fixtures, securing loose wiring, replacing a malfunctioning breaker, and replacing unsafe electrical panels as determined by a licensed electrician.				
	ibited Actions			
Concur wi	h DOE Guidance 🗹			
Using DOE WAP H&S funds for <i>major</i> electrical repairs as de	ined by the Grantee's H&S	S plan is prohibited.		
	Define "major" repairs			
A major repair is something other than those listed above in the minor repairs section that exceeds \$1000. A major repair would include rewiring an entire dwelling.				
Required Testing/Inspection				
Concur with DOE Guidance Alternative Guidance Results in Deferral/Referral				
DOE WAP H&S Funds 🗹 Alternative Funds 🗹				
 Visual inspection for presence and condition of knob-and-tube wiring. 				
 Evaluate knob-and-tube wiring for safety prior to work. 				
 Check for alterations that may create an electrical hazard. 				
Allowable Testing/Inspection				
Allowed with DOE WAP H&S Funds 🗹	Allov	ved with Alternative Funds 🗹		
Voltage drop and voltage detection testing are allowed.				
Required Occupant Education				
Concur with DOE Guidance 🗹 Alternative Guidance 🗆				
 Provide occupant with written documentation of any electrical hazards identified that will not be addressed by weatherization. Provide information to occupant on over-current protection, overloading circuits, and basic electrical safety/risks if conditions warrant. 				

6.7 – Fuel Leaks				
Required Actions				
Concur with DOE Guidance 🗹	Alternative Guidance Results in Deferral/Referral		Results in Deferral/Referral 🛛	
DOE WAP H&S Funds 🗹	1		Alternative Funds 🗹	

• When a gas leak is found on the utility side of service, the utility service must be contacted, work must be temporarily				
halted, and the leak must be repaired before work may proceed.				
	he utility) must be repaired before installing weatherization			
measures in the home.				
Allowabl	e Actions			
Allowed with DOE WAP H&S Funds ☑	Allowed with Alternative Funds 🗹			
 Replacement or repair of leaking bulk fuel tanks and/or li 	nes if connected systems will remain after			
weatherization.				
Replacement of flexible appliance gas connectors that are	e not compliant with current fuel gas codes.			
Prohibite				
Concur with DC	DE Guidance 🗹			
 Using DOE WAP H&S funds to repair leaks that are the res 	ponsibility of the utility to correct is prohibited.			
 Using DOE WAP H&S funds for environmental cleanup res 				
Required Test	ing/Inspection			
Concur with DOE Guidance 🗹 🛛 🛛 Alternative 🤇	Guidance Results in Deferral/Referral			
DOE WAP H&S Funds 🗹 Alternative Funds 🗹				
 Test all exposed gas lines, fittings, valves, and connections 	s for fuel leaks from utility connection to the appliance			
throughout the home.				
 Test all gas appliances for fuel leaks at all connections, val 	ves, fittings, and burners.			
 Conduct sensory inspection of all bulk fuels lines and stora 	age tanks to determine if leaks exist.			
Allowable Test	ing/Inspection			
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹				
Testing of exposed gas lines for fuel leaks from utility coupling into, and throughout, the home.				
Prohibited Test	ting/Inspection			
Concur with DC	DE Guidance 🗹			
Using DOE WAP H&S funds for environmental testing of soil or wa	ater is prohibited.			
Required Occupant Education				
Concur with DOE Guidance 🗹 Alternative Guidance 🗆				

• • • • • • • • • • •	
Inform occupants in writing of fuel leak testing results, including s	posific location if fuel looks are detected
I IIIOTTI OCCUDATILS III WITLING OFTUEFTEAK LESLING TESUILS. IIICIUUING ST	

6.8 – Gas Ovens/Stovetops/Ranges				
Allowable Actions				
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹				
When testing indicates a problem, stan	ndard maintenance o	on gas cooktops ar	nd ovens is allowed.	
	Prohibited	Actions		
	Concur with DOE	E Guidance 🗹		
Using DOE H&S for replacement of gas ovens/ranges/stovetops is prohibited. Replacement with LWAP H&S (including switching the				
fuel source) is allowed.				
	Required Testin	g/Inspection		
Concur with DOE Guidance 🗹	Alternative Gu	uidance 🛛	Results in Deferral/Referral	
DOE WAP H&S Funds 🗹	DOE WAP H&S Funds 🗹 Alternative Funds 🗹			
 Test gas ovens for CO. 				
 Grantee H&S plan must define action levels and resulting actions. 				
 Visually inspect cooking burners and ovens for operability and flame quality. 				
Define action levels for oven CO testing and resulting actions				

- If the CO exceeds the threshold limit of 225 Parts per Million (PPM) as measured, the appliance will be cleaned.
- If the CO exceeds the threshold limit of 225 PPM as measured after cleaning , the appliance will be serviced.
- If the CO exceeds the threshold limit of 225 PPM as measured after servicing, the dwelling may be deferred or the appliance may be replaced with alternative (LWAP, DES, or other approved braided source) funds.

Allowable Testing/Inspection				
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹				
Testing for CO is allowed.				
Required Occupant Education				
Concur with DOE Guidance 🗹 Alternative Guidance 🗆				
Inform occupants of the importance of using exhaust ventilation when cooking and the importance of keeping burners and broilers clean to limit the production of CO.				

	6.9 – Hazardo	ous Materials	
	Require	d Actions	
Concur with DOE Guidance 🗹	Alternative	Guidance 🛛	Results in Deferral/Referral
DOE WAP H&S Funds 🗹			Alternative Funds 🗹
Hazardous Waste Materials generate	d by weatherization	work (e.g., refriger	ant, asbestos, lead, mercury, CFL lighting
	-		, regulations, and guidelines, as applicable.
Costs specifically related to disposal r		•	
Subgrantees must document disposal	•		
		is required (e.g., fla	mmable liquids, hazardous chemicals, and
other air pollutants) as defined the G			
If removal cannot be performed or is			
	Define "limited" re	•	
Limited removal of pollutants is any a	ction below the prev	viously defined majo	r repair limit of \$1000.
	Allowabl	e Actions	
Allowed with DOE WAP H&S Fun			owed with Alternative Funds 🗹
Any pollutant that poses a direct risk to weatherization workers or occupants may be removed provided the cost			
to remove the pollutants is \$1000 or l			
	Prohibite	ed Actions	
	Concur with DC	DE Guidance 🗹	
Using DOE WAP H&S funds for Lead, Asbesto	•		
	Required Test		
Concur with DOE Guidance 🗹	Alternative	Guidance 🛛	Results in Deferral/Referral 🛛
DOE WAP H&S Funds 🗹		Alternative Funds 🗹	
Sensory inspection.			
Allowable Testing/Inspection			
Allowed with DOE WAP H&S Funds 🛛		Allowed with Alternative Funds 🗖	
N/A			
		ting/Inspection	
	Concur with DC		
Using DOE WAP H&S funds for any testing for		is is prohibited othe	r than that specifically permitted in the
asbestos, lead, and radon sections of this doc			
		pant Education	
Concur with DOE Guidance			Alternative Guidance 🛛

- Inform occupant in writing of hazards associated with hazardous waste materials being generated/handled in the home.
- Inform occupant in writing of observed hazardous condition and associated risks.
- Provide occupant written materials on safety issues and proper disposal of household pollutants.

6.10 - Injury Prevention of Occupants			
	Allowabl	e Actions	
Allowed with DOE WAP H&S Funds 🗹		Allow	ved with Alternative Funds 🗹
Repairs or replacement of stairs, including attic, base when necessary to effectively weatherize the home s			
	Prohibite	d Actions	
		DE Guidance 🗹	
Using DOE WAP H&S funds for <i>major</i> repairs, as defined	ned by the G	rantee's H&S Plan, is p	prohibited.
	Define "ma	jor" repairs	
 A major repair is any measure: Other than repairing stairs or installing or repairing handrails Or Exceeds the previously defined limit of \$1000 			
R	equired Test	ing/Inspection	
	Alternative (Results in Deferral/Referral
DOE WAP H&S Funds 🗹			Alternative Funds 🗹
Visually inspect for dangers that would prevent weat	herization.		
AI	lowable Test	ing/Inspection	
Allowed with DOE WAP H&S Funds \square		Allow	ved with Alternative Funds 🛛
N/A			
Required Occupant Education			
Concur with DOE Guidance 🗹 Alternative Guidance 🗆			
If identified hazardous conditions will not be corrected during weatherization, inform occupant in writing of observed hazards and associated risks utilizing Form 111 Weatherization Hazard identification Form required by WPN 22-7.			
6.11 – Lead-Based Surfac	e Coverin	gs (Paint, Varnisł	nes, Roofing, etc.)

Rea	uired	Actions
Reg	uirea	ACTIONS

Concur with DOE Guidance 🗹	Alternative Guidance 🛛		Results in Deferral/Referral 🛛
DOE WAP H&S Funds 🛽	2		Alternative Funds 🗹

- Subgrantees must comply with EPA's Lead; Renovation, Repair and Painting Program (RRP) rules when working in pre-1978 housing unless testing confirms the work area to be lead free. This includes, but is not limited to:
 - Client file documentation including the Certified Renovator's certification; any training provided on-site; description of specific actions taken; lead testing and assessment documentation; and photos of site and containment set up.
 Include the location of photos referenced if not in file.
 - Certification and training requirements of the RRP rule.
 - $\circ~$ Job site set up and cleaning verification by a Certified Renovator.
- Only those costs directly associated with lead safe work practices for surfaces directly disturbed during weatherization activities are allowable WAP H&S expenses.

Allowable Actions		
Allowed with DOE WAP H&S Funds 🗹	Allowed with Alternative Funds 🗹	

Health and Safety funds can only be expended for lead safe work on surfaces that are directly disturbed during weatherization.

Prohibited Actions

Concur with DOE Guidance 🗹

- Using DOE WAP H&S funds for lead abatement is prohibited.
- Using DOE WAP H&S funds for purchase, resourcing, or maintenance of X-ray Fluorescence (XRF) devices is prohibited.

Allowable Testing/Inspection			
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹			
Testing to determine the presence of lead in paint that will be disturbed by weatherization measures is allowed			

- Testing to determine the presence of lead in paint that will be disturbed by weatherization measures is allowed with EPA-approved testing methods.
- Testing methods must be economically feasible and justified.
- Job site set up and cleaning verification must be performed by a Lead Safe Certified Renovator.
- During annual monitoring, the grantee will verify that contractors and crews are using lead safe work practices.

Required Occupant Education			
Concur with DOE Guidance 🗹 Alternative Guidance 🗆			
Follow pre-renovation education requirements per EPA RRP rules (Form 103 Lead Certified Renovator and 103 A Lead Education			
Pamphlet).			

6.12 – Mold and Moisture					
		e Actions			
Allowed with DOE WAP H&S Fur	nds 🗹	Allow	ed with Alternative Funds 🗹		
 Limited water damage repairs (floors, c weatherization measures. 	• Limited water damage repairs (floors, ceilings, crawlspaces) are allowed when necessary to ensure the long-term stability of weatherization measures.				
 Source control (i.e., correction of moisture and mold creating conditions) to weatherize the home and to ensure the long-term stability and durability of the measures. Source control is independent of damage and related repairs. Source control includes but is not limited to, site drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, ground covers, etc. Window and door repairs are allowed with H&S funds to resolve a bulk water intrusion issue that is the cause of visible biological growth and in compliance with the most current program notice (WPN 19-5 at the time of this guidance). 					
	•	space doors, and belly i	repair for manufactured homes are viable		
measures to combat mold and moisture					
		ed Actions			
		DE Guidance 🗹			
 Using DOE WAP H&S funds for mold cle 	• •				
Window and door replacement is only a	allowed with alternat	ive funds (LWAP, DES, o	or other braided funding source).		
	Required Test	ing/Inspection			
Concur with DOE Guidance 🗹	Alternative	Guidance 🛛	Results in Deferral/Referral 🛛		
DOE WAP H&S Funds 🗹			Alternative Funds 🗹		
Visual assessment for moisture or mold dam	age including exterio	or drainage.			
	Allowable Tes	ting/Inspection			
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹					
Diagnostic tools such as moisture meters or relative humidity measurements are allowable at the initial energy audit and final inspection.					
	Prohibited Tes	ting/Inspection			
	Concur with D	DE Guidance 🗹			
Using DOE WAP H&S funds for mold testing of any type is prohibited.					
Required Occupant Education					

Concur with DOE Guidance 🗹	Alternative Guidance 🛛

- Provide client written notification and disclaimer on mold and moisture awareness utilizing Mold and Moisture Form 102 and 'A Brief Guide to Mold, Moisture, and Your Home' pamphlet.
- Provide information on importance of cleaning and maintaining drainage systems.
- Provide information on proper landscape design and how this impacts site drainage and moisture control.
- When deferral is necessary, complete Deferral Form 107 with description of conditions that must be met for weatherization to commence.

6.13 - Occupant Pre-existing or Potential Health Conditions					
	Required Actions				
Concur with DOE Guidance 🗹	Alternative	Alternative Guidance Results in Deferral/Referral			
DOE WAP H&S Funds 🗹			Alternative Funds 🗹		
When a person's health may be at ri	sk and/or WAP work	activities could constit	ute an H&S hazard, the occupant is		
required to take appropriate action	based on severity of r	isk.			
Deferral, if occupant risk cannot be i	mitigated.				
	Allowabl	e Actions			
Allowed with DOE WAP H&S Fu	ınds 🛛	Allow	ed with Alternative Funds 🗖		
N/A					
Required Testing/Inspection					
Concur with DOE Guidance 🗹	Alternative	Guidance 🛛	Results in Deferral/Referral 🛛		
DOE WAP H&S Funds 🗹 Alternative Funds 🗹					
• Screen occupants for known or suspected health concerns either as part of initial application for weatherization, during					
the audit, or both.					
• Form 100 (Client Interview) is used by subgrantees to identify health concerns. Should deferral be necessary due to					
pre-existing or potential health conditions, complete Deferral Form 107 detailing the reason for deferral.			g the reason for deferral.		
Allowable Testing/Inspection					
Allowed with DOE WAP H&S Funds Allowed with Alternative Funds			ed with Alternative Funds \Box		
N/A					
	Required Occu	pant Education			
Concur with DOE Guidance	\checkmark		Alternative Guidance 🛛		
 Inform occupant in writing of any kn 	 Inform occupant in writing of any known risks and provide pre-weatherization screening form. 				
 Provide occupant with Subgrantee point of contact information in writing. 					

6.14 – Pests			
	Require	d Actions	
Concur with DOE Guidance 🗹	Alternative	Guidance 🛛	Results in Deferral/Referral 🛛
DOE WAP H&S Funds	DOE WAP H&S Funds 🗹 Alternative Funds 🗹		
Deferral of homes where infestation of pests cannot be reasonably removed or poses health and safety concerns for workers.			
Allowable Actions			
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹			
 Pest removal is allowed only where infestation would prevent weatherization. Pest removal limited to \$1000. 			
 Screening of windows and other points of access including belly repair of a manufactured home to prevent intrusion is allowed. 			factured home to prevent intrusion is
Allowable Testing/Inspection			

Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹	

Visual assessment of presence and degree of infestation and risk to workers.

Required Occupant Education

Alternative Guidance 🛛

• Inform client in writing of observed conditions and associated risks.

Concur with DOE Guidance ☑

• When deferral is necessary, complete Deferral Form 107 with description of conditions that must be met for weatherization to commence.

6.15 – Radon			
	Required	Actions	
Concur with DOE Guidance 🗹	Alternative (Guidance 🛛	Results in Deferral/Referral 🛛
DOE WAP H&S Funds 🗹	[Alternative Funds 🗹
Cover exposed dirt floors within the	pressure/thermal bou	undary with a sealed se	oil gas retarder.
Cover sump well/pits with airtight co	overs.		
Implement ventilation as required by	y ASHRAE 62.2-2016.		
	Allowabl	e Actions	
Allowed with DOE WAP H&S Fu	nds 🗹	Allow	ed with Alternative Funds 🗹
In homes where radon may be present, work scope may include additional precautionary measures based on EPA			
Healthy Indoor Environment Protocols for Home Energy Upgrades.			
• Other precautions may include, but are not limited to, sealing any observed floor and/or foundation penetrations,			
isolating the basement from the conditioned space, and ensuring crawl space venting is installed and operable.			
Prohibited Actions			
Concur with DOE Guidance 🗹			
Using DOE WAP H&S funds for radon mitigation is prohibited.			
Allowable Testing/Inspection			
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹			ed with Alternative Funds 🗹
Free testing is made available to all weatherization clients through the South Carolina Department of Health and			
Environment Control.			
	Required Occu	pant Education	
Concur with DOE Guidance	\square	ŀ	Alternative Guidance 🛛
Clients must sign the Radon Informe			services can begin.
 Clients must receive the EPA's 'A Citizen's Guide to Radon'. 			

6.16 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers			
Required Actions			
Concur with DOE Guidance 🗹 Alternative Guidance 🗆 Results in Deferral/Referral 🗆			Results in Deferral/Referral
DOE WAP H&S Funds 🗹	Alternative Funds		
Install CO alarms in every home where alarms are not present or are inoperable in compliance with ASHRAE 62.2-2016 which references NFPA 720 (note: NFPA 720 has been incorporated into NFPA 72).			
Allowable Actions			
Allowed with DOE WAP H&S Fun	ds 🗹	Is 🗹 Allowed with Alternative Funds 🗹	

- Install smoke alarms where the AHJ requires them if alarms are not present or are inoperable.
- Replace functional smoke alarms and carbon monoxide alarms if they are beyond the manufacturer's stated lifetime (usually 10 years).
- Replace functional smoke or CO alarm batteries if designed to be replaceable.
- Provide fire extinguishers where solid fuel burning equipment is present.

Prohibited Actions			
Concur with DOE Guidance 🗹			
Using DOE WAP H&S funds for replacement of functional smoke or CO alarms that are not beyond the manufacturer's stated lifetime is prohibited.			
	Required Test	ing/Inspection	
Concur with DOE Guidance 🗹	Alternative	Guidance 🛛	Results in Deferral/Referral 🛛
DOE WAP H&S Funds 🗹 Alternative Funds 🗹		Alternative Funds 🗹	
Verify operation and age of installed alarms.			
Allowable Testing/Inspection			
Allowed with DOE WAP H&S F	unds 🗖	Allo	wed with Alternative Funds 🗖
N/A			
Required Occupant Education			
Concur with DOE Guidance	e ⊠		Alternative Guidance 🛛
Provide occupant with verbal and written i maintaining these devices.	nformation on use of r	newly installed devic	es and the potential risks of not properly

6.17 – Ventilation and Indoor Air Quality			ality
	Required	d Actions	
Concur with DOE Guidance 🗹	Alternative (Guidance 🛛	Results in Deferral/Referral 🛛
DOE WAP H&S Funds 🗹	1		Alternative Funds 🗹
Install ventilation as required by ASHRAE 62 be deferred.	2.2 - 2016. If occupant	refuses ventilation as	required by ASHRAE 62.2, the home must
	Allowabl	e Actions	
Allowed with DOE WAP H&S Fu	ınds ⊠	Allow	ved with Alternative Funds 🗹
The latest ASHRAE 62.2 standards will be adopted as they are updated.			
Required Testing/Inspection			
Concur with DOE Guidance 🗹	Alternative Guidance D Results in Deferral/Referr		Results in Deferral/Referral 🛛
DOE WAP H&S Funds 🗹 Alternative Funds 🗹			
ASHRAE 62.2 evaluation to determine required post-weatherization ventilation.			
 Measure fan flow of existing fans and of installed equipment to verify performance. 			
Allowable Testing/Inspection			
Allowed with DOE WAP H&S Fu	inds 🛛	Allow	ed with Alternative Funds 🗖
N/A			
Required Occupant Education			
Concur with DOE Guidance 🗹 Alternative Guidance 🗖			Alternative Guidance 🛛
• Provide occupant with information on function, use, and maintenance (including location of service switch and cleaning			
instructions) of ventilation system and components.			
 Provide occupant with equipment manuals for installed equipment. 			
 Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality. 			

6.18 – W	ater Heaters	
(See Combustion Appliances for	combustion related	d requirements)
Allowa	ble Actions	
Allowed with DOE WAP H&S Funds 🗹	Allow	ed with Alternative Funds 🗹
 Minor safety repairs of water heaters are allowed (T&P 		revention devices, expansion tanks)
provided they do not exceed the major repair limit of S		
Replace, repair, or install primary water heater when e	kisting primary water hea	ater is unsafe, inoperable, or
nonexistent.		
Poquirod T	sting/Inspection	
Required Testing/Inspection		
Concur with DOE Guidance Alternative Guidance Results in Deferral/Referral DOE WAD USE Stands Alternative Guidance Alternative Stands		
DOE WAP H&S Funds 🗹 Alternative Funds 🗹		
 Visual inspection of all water heaters and related piping 	-	
See Combustion Appliances section for related combus	, , ,	ements.
	esting/Inspection	
Allowed with DOE WAP H&S Funds	Allow	ed with Alternative Funds 🗹
Combustion Appliance Zone (CAZ) testing is allowed.		
Required Occupant Education		
Concur with DOE Guidance 🗹 Alternative Guidance 🗆		
Appropriate use and maintenance of units.		
 Provide all paperwork and manuals for any installed equilibrium 	•	
Where combustion equipment is present, provide combustion safety and hazards information including how to recognize		
depressurization, dangers of CO poisoning, and fire risks associated with combustion appliance use.		

6.19 – Worker Safety					
	Required Actions				
Concur with DOE Guidance 🗹	Alternative (Guidance 🗖	Results in Deferral/Referral 🛛		
DOE WAP H&S Funds 🗹	1		Alternative Funds 🗹		
Adherence to all federal, state, and local wo	orker safety regulatior	ıs (e.g., OSHA, EPA).			
Allowable Actions					
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹					
 Removal of clutter and miscellaneous items to clear work zones for contractors or crews is allowable. Cost must not exceed \$250. 					
• Equipment purchases to protect the health and safety of workers including Personal Protective Equipment (PPE) and jobsite cleaning supplies.					
Prohibited Actions					
Concur with DOE Guidance 🗹					
Using DOE WAP H&S funds for <i>major</i> repairs as defined by the Grantee's H&S Plan is prohibited.					
Define "major" repairs					

A major repair is any measure:

- other than repairing stairs or installing or repairing handrails, or
- exceeds the previously defined major repair limit of \$1000.

Allowable Testing		
Allowed with DOE WAP H&S Funds 🗹 Allowed with Alternative Funds 🗹		
Environmental and surveillance testing required by OSHA regulation.		