Weatherization Grantee Health and Safety (H&S) Plan- *Optional Template* **Tennessee Housing Development Agency**

1.0 - GENERAL INFORMATION

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

Purpose of the THDA's Weatherization Program Health and Safety Plan

This document exists to provide more informed decision making for state and local weatherization agencies as well as weatherization program technical partners. The plan is designed to provide both financial, programmatic and technical instruction focused on the program's health and safety component.

Federal regulations serving as the foundation of the weatherization program allow for the improvement or elimination of occupant health and safety hazards. The elimination of health and safety hazards must be energy related and necessary before, or as a result of, installation of weatherization measures.

Health and safety funding is limited and therefore, the following policies are in place to better instruct program partners how to efficiently and effectively utilize the dedicated funding.

General Information

If a subgrantee is unsure how to handle a health and safety measure, the subgrantee will contact THDA for additional guidance on a case by case basis.

- Examples of case by case guidance may include: non-visible knob and tube wiring, hazardous or non- functioning water heaters, suspected
 asbestos containing materials and other unique situations.
- O THDA will offer additional guidance based on review of documentation or conduct a site visit if needed.
- o If THDA is unable to reach a conclusion, THDA will seek additional guidance from DOE. Health and safety measures that are beyond the scope of the WAP may be addressed using LIHEAP Wx or Weatherization Readiness funds, if determined allowable by THDA.

Major Health and Safety Repair Definition: Repair costs that meet or exceed \$1,282.05.

- This figure is determined by 2025 Program Year DOE WAP budget cap of \$8,547 x 15%
- Examples of major health and safety repairs include, but not limited to: large areas of mold removal, structural repair, major electrical wiring replacement, extensive roof repair, pest infestation, and major moisture issues. Repairs such as these are beyond the scope of weatherization.
- Agencies are encouraged to seek alternative funding sources to conduct major repairs. Dwelling units needing repairs that are beyond the scope of weatherization must be deferred until the issues are corrected.
 - If an agency is unsure how to handle a major repair health and safety issue, THDA must be contacted for additional guidance.

Minor Health and Safety Repair Definition: Repair costs below \$1,282.05.

- Examples of minor health and safety repairs include, but not limited to: minor water leak repair, electrical junction box and outlet repair, and small areas of mold removal. These examples may be addressed with DOE Health and Safety funds.
 - O If an agency is unsure how to handle a minor repair health and safety issue, they will contact THDA for additional guidance.

Partial Weatherization:

Partial weatherization of a unit is not allowed. Units that have health and safety issues that are beyond the scope of WAP *must be deferred*. Units that only receive DOE funded health and safety measures may not be counted as a completed unit.

Health and Safety Measure Documentation:

Written and photo justification of health and safety measures must be included in the client file. This includes documentation to all Lead Safe Practices.

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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 program evaluations. H&S costs that are budgeted and reported under the Program Operations category rather than the H&S category, the related H&S costs must be included in the calculation of the ACPU and cost-justified through the Grantee's Department of Energy (DOE)-approved energy audit tool.

Select which option used below.

Separate H&S Budget ☑ Contained in Program Operations □

3.0 - H&S EXPENDITURE LIMITS

Pursuant to 10 CFR 440.16(h), Grantees must establish H&S expenditure limits for their Program and provide justification for those 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).

 $\underline{10 \ CFR \ 440.16(h)(2)}$ dictates that these limits must be expressed as a percentage of the ACPU. To calculate this percentage, use the following formula:

 $Total\ Average\ H\&S\ Cost\ per\ Unit = \frac{H\&S\ budget\ amount}{Program\ Operations\ budget\ amount}$

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 10 CFR 440.18(d)(15), 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 should 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.

Each unit is unique and offers different challenges, there is not a specific amount per unit. The state will provide each subgrantee with the maximum amount of their funding which they can use to address eligible Health and Safety measures as defined in the Tennessee WAP Health and Safety Plan. The state will limit such expenditures to *no more than* **15%** of total DOE funds allocated to program operations in the annual plan budget, although the amount used by an individual agency may be less than 15% of their funding, depending on the need of their housing stock.

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The subgrantee will be allowed the flexibility to use their funds across the units they weatherize, provided they are also installing energy conservation measures. There will not be a specific cap on the amount of health and safety funding allowed per unit, but rather the subgrantee may not exceed the total health and safety funding allocation for their agency as defined by the grantee for that program year.

Tennessee housing stock includes a high incident of unvented space heaters. Per DOE policy, these unvented space heaters that serve as the primary heating source must be addressed for weatherization to proceed. The expense associated with replacing unvented spaced heaters, along with costs associated with complying with the requirements of this health and safety plan and the implementation of ASHRAE 62.2 - 2016 to the fullest extent possible, require Tennessee to request that a minimum of 15% of the funds available be used to address health and safety issues.

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. Alternatively, the measure matrix is also available as a standalone spreadsheet located at the following link: Weatherization Program Notice 22-7:

Weatherization Health and Safety | Department of Energy



Measure Matrix Final.xlsx

4.0 - INCIDENTAL REPAIR MEASURES

Any measures that could potentially be identified as H&S, but the Grantee chooses to instead identify and treat those measures as incidental repair measures (IRMs), 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 and/or package of measures. 10 CFR 440.3 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.

Certain measures included in this current health and safety plan may meet either incidental repair or health and safety measure definitions. Funding source distinction will adhere to DOE incidental repair and health & safety measure definitions and policies set forth in: WPN 22-7, WPN 19-5 and the THDA Weatherization Program Manual.

Measure categories in this plan will identify common measures which may overlap in definitions between an incidental repair or health and safety measure.

Readers shall refer to the WPN 19-5 Flow Chart to aid in their decision making.

• If a repair measure can be tied to a specific energy conservation measure, then it may be funded as an incidental repair.

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- If the package of measures falls below 1.0 SIR after the inclusion of the repair, the measure may potentially be funded under health and safety.
- If the measure is not tied to a specific ECM, the measure may potentially be funded under health and safety.

All measures must be clearly documented and meet the definition under which they are funded.

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 occupant(s) (and landlord if applicable) name and address, be signed and dated by the occupant (and landlord if applicable) indicating that they understand and have been informed of their rights and options and signed by 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 retrofits</u>
 <u>Expansion Study (The BEX Study)</u>
 - A list of precautionary measures WAP will install based on <u>EPA Healthy Indoor Environment Protocols.</u>
 - 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

Subgrantees and energy auditors allow for multiple occasions to create opportunity for the building occupant to state health and safety concerns related to components of their dwelling.

Subgrantee intake staff will verbally inquire of general and common building conditions that could impact health and safety.

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The weatherization application allows applicants to disclose health and safety concerns related to building components. Energy auditors will conduct a health and safety evaluation during the initial energy audit. The results are communicated to the client.

List of related client health and safety documents are below:

- Weatherization Assistance Application Single family example
- Deferral Notice Single Family example
- Client Education Material Consent Form Single document which verifies through client/energy auditor signature that all required client education notices and brochures were discussed and understood.
 - Mold and Moisture Inspection and Release Form
 - Client Education Checklist
 - Radon Informed Consent Form
 - Repair, Renovation, and Painting Pamphlet Client acknowledgment

These forms are being updated and will be released via THDA internal Memo. The current versions have been uploaded as supporting documents to SF-424.

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

The weatherization assistance application includes a question that allows applicants to state health conditions that may be negatively impacted by the act of weatherizing their dwelling. Subgrantee intake staff or the energy auditor will follow up with the applicant on more specifics as necessary.

1. Do any household members have any known or suspected health concerns that would be negatively impacted by weatherization work?

Procedure for addressing potential health concerns including pre-existing health conditions when they are identified Applicants that disclose health conditions during the application process will be addressed on a case by case basis.

- Clients who are ill from infectious disease will be deferred until the period of contagiousness and symptom(s) subside.
- Clients who suffer from allergic reactions or respiratory conditions which may be exacerbated through the installation of certain weatherization materials will be asked if certain accommodations can be made to avoid exposure. Other options may be presented such as installing alternative materials.
- Clients with physical disabilities will notify weatherization workers of concerns or restrictions that may impact typical weatherization installation.

All health conditions will be treated individually to ensure the respect and comfort of the client is maintained while maximizing weatherization efforts.

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

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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.

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6.1 – Air-Conditioning, Heating Systems, and Combustion Appliances Required 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 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:
 - o are not listed and labeled as meeting ANSI Z21.11.2;
 - o have an input rating of more than 40,000 BTU/hour;
 - o are in a bedroom and have an input rating of more than 10,000 BTU/hour;
 - o are in a bathroom and have an input rating of more than 6,000 BTU/hour;
 - o are operating in an unsafe manner (e.g., high carbon monoxide (CO) readings, too close to combustible materials, lack sufficient combustion air volume);
 - o or are not permitted by the Authority Having Jurisdiction (AHJ).
- DOE WAP Grantees must comply with the Manufactured Home Construction and Safety Standards which mandates 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 weatherization in manufactured homes must meet these standards, including secondary heating sources. No unvented fuel-burning space heating appliances may remain in a MH after weatherization under any circumstances. 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 and 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 ☑			

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	as feasible under the minor repair limit, is outlined above.			
Prohibite				
Concur with DC	DE Guidance 🗹			
Using DOE WAP H&S funds for replacement or ins	stallation of secondary heat sources is prohibited.			
Required Testi	ng/Inspection			
Concur with DOE Guidance ☑	Alternative Guidance □			
 Verify that primary heating systems are present, operable 	e, and performing correctly.			
 Conduct a visual inspection of all combustion appliances a 	and their related venting			
 Conduct combustion appliance testing of all gas and liquid 	d-fueled combustion appliances.			
 Conduct combustion appliance testing and visual inspection 	on of all combustion appliances and their related venting.			
leaving the home on any day when work has been done the ventilation).	tegory 1 appliances pre- and post-weatherization and before hat could affect draft (e.g., air or duct sealing, adding exhaust			
 CO testing is required for all gas and liquid-fueled combus Verify proper clearances for all combustion venting types 	stion appliances, regardless of venting type.			
 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. Appliances must be inspected pre- and post-weatherization and any safety issues found should be included in the client H&S notification form. Conduct pre- and post- weatherization worst case CAZ depressurization testing in spaces having a fireplace or woodstove. Since there is no consensus method for verifying safe operation of fireplaces and woodstoves, Grantees can propose testing policies and limits. If the Grantee does not propose a policy and fireplaces or woodstoves are left operational, the vent must meet national or local codes, or the home cannot be weatherized. Safety inspections related to space heaters, fireplaces, and woodstoves must include, but not be limited to, verification of adequate floor protection, and code-compliant clearances to walls and other combustible materials. Grantee Combustion Testing Action Levels Combustion appliance safety inspection for vented appliances will follow ANSI/BPI-1200. Grantee Woodstove & Fireplace inspection/testing policy including actions/limits Concur with DOE Guidance Good Alternative Guidance Good Good Good Good Good Good Good Goo				
home must be deferred.				
Required Occupant Education				
Concur with DOE Guidance 🗹	Alternative Guidance			
Appropriate use and maintenance of units.				
 Provide all paperwork and manuals for any equipment installed by weatherization. 				
 Discuss and provide information on proper disposal of bulk fuel tanks when not removed as part of the weatherization work. 				
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.				

6.2 – Asbestos (Confirmed and/or Presumed Asbestos Containing Material)				
Required Actions				
Alternative Guidance □		Results in Deferral/Referral		
DOE WAP H&S Funds ☑		Alternative Funds ☑		
	•	Alternative Guidance 🏻		

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- 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:
 - o Identifying and managing suspected ACM that provides for reasonable and necessary precautions to prevent asbestos contamination in the home.
 - o Addressing blower door testing where suspected friable ACM is present (as defined by EPA), including vermiculite.

Grantee ACM policy

GENERAL PRECAUTION

- Take all reasonable and necessary precautions to prevent asbestos damage and/or contamination in the home. When presumed friable asbestos containing materials (ACMs) are present and unless testing determines otherwise, take precautionary measures <u>as if</u> the material contains asbestos.
- Major asbestos problems should be referred to the appropriate state or federal agency.
 - o Tennessee Department of Environment and Conservation
 - US Environmental Protection Agency
- Proper respiratory and other personal protective equipment must be used.

DEFINITIONS

- FRIABLE the ACM can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand.
- <u>ENCAPSULATION</u> the treatment of *ACM* (Asbestos Containing Material) with a material that **surrounds or embeds** asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

MEASURE FUNDING

- ACM encapsulation and removal on <u>HVAC</u>, <u>distribution</u>, <u>venting</u>, <u>and other small surfaces</u> is allowed using health and safety funds.
- **Direct costs** associated with the <u>testing, encapsulation, or removal</u> of ACMs underlined above may be charged to the health and safety budget category.

Grantee Blower Door Testing Policy When Suspected ACM Exists

- It is recommended to pressurize the dwelling instead of depressurize when conducting blower door diagnostics.
- The subgrantee or its representative shall contact THDA if a blower door test <u>cannot be conducted</u> due to the potential for ACM contamination in the dwelling.

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

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ENCAPSULATION

Weatherization workers may address ACMs such as asbestos tape on ductwork and HVAC systems as long as it is not observed to be in such a state of degradation-meeting the above definition of "friable".

The encapsulation of this type of material can be completed by using an approved duct mastic to completely cover and seal the tape where friability is no longer a concern. Weatherization technical workers shall use expert judgement in determining the condition of ACMs and whether encapsulation is possible.

REMOVAL

Asbestos <u>removal</u> on HVAC, distribution, venting, and other small surfaces is allowed using DOE health and safety funds. Subgrantees must notify THDA prior to the removal of ACM as approval is on a case by case basis. It is encouraged to inform energy auditors to identify the potential need for such actions prior to bid notification.

	Prohibite	ed Actions	
	Concur with DO	DE Guidance ☑	
Using DOE WAP H&S funds for general aba	atement/removal/or r	eplacement of asbest	os siding, thermal system insulation (TSI) or
	Transite, or vermi	culite is prohibited.	
	Required Test	ing/Inspection	
Concur with DOE Guidance ✓	Alternative	Guidance 🛘	Results in Deferral/Referral □
DOE WAP H&S Funds	$ \overline{A} $		Alternative Funds ☑
 Visually inspect all surfaces (i.e., wa 	alls, floors, ceilings, roo	ofs) for suspected ACI	M prior to drilling or cutting.
 Assume asbestos is present in susp 	ect materials unless te	esting reveals otherwi	se.
	Allowable Test	ting/Inspection	
Allowed with DOE WAP H&S F	Allowed with DOE WAP H&S Funds ☑ Allowed with Alternative Funds ☑		
Assess whether suspected ACMs are present through visual inspection, or testing through a certified professional.			
 Asbestos Hazard Emergency Response Act of 1986 (AHERA) sample collection and testing must be conducted by a 			
certified tester.			
Required Occupant Education			
Concur with DOE Guidance	e 🗹		Alternative Guidance
Formally notify the occupant, and la	andlord if applicable, i	n writing:	
o 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 perform 	ned;		
 not to disturb suspected ACM; 			
When deferral is necessary due to asbestos, occupant, or landlord if applicable, must provide documentation that a			
certified professional performed the remediation before work continues			

6.3 – Biologicals and Unsanitary Conditions					
	Required Actions				
Concur with DOE Guidance ✓	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					

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Allowed with DOE WAP H&S Funds ☐ Allowed with Alternative Funds ☑		d with Alternative Funds ☑		
Minor repairs related to are allowable under alternative funding, as approved by THDA.			roved by THDA.	
Re	quired Testi	ing/Inspection		
Concur with DOE Guidance ☑	Alternative C	Guidance □	Results in Deferral/Referral □	
DOE WAP H&S Funds □			Alternative Funds □	
Sensory inspection of inter	rior, exterior	, attics, and subspaces	of the dwelling.	
Pro	hibited Test	ing/Inspection		
Coi	ncur with DC	E Guidance ☑		
DOE WAP H&S funds may not be	used for tes	ting of materials for bi	ological contaminants.	
Rec	quired Occu	pant Education		
Concur with DOE Guidance 🗹		А	Iternative Guidance	
Inform occupant in writing	g of observed	d biological and unsani	tary conditions.	
6.4 – Building Structure a	and Roofii	ng (e.g., roofing, v	vall, foundation)	
	Allowable		•	
Allowed with DOE WAP H&S Funds ☑			ed with Alternative Funds ☑	
Health and safety funds may be used for structure an	d roofing rer			
workers.	a	, as incocosa.		
	Prohibite	d Actions		
Col		DE Guidance 🗹		
Using DOE WAP H&S fu			Grantee's H&S Plan	
	-	or building rehabilitation		
Oshig DOL WAF I	Define "maj		ir is prombited	
MAJOR REPAIR RECINITION	Define maj	joi repairs		
MAJOR REPAIR DEFINITION	l : 450/ fil		and the state of t	
Major repairs in this category exceed \$1,282.05, which				
considered major repairs. Weatherization will be deferred unless alternative funding is used to make the necessary repairs.				
ROOF REPAIRS	_			
Weatherization health and safety funds used for roo	•			
biological growth or could potentially result in biological		•		
funding sources or as an incidental repair where mea	asure costs a	re included in the cum	ulative SIR.	
STRUCTURAL AND BUILDING REPAIRS				
Repairs in this category that do not exceed the cost cap above are allowed as long as funding definitions are met.				
Subgrantees shall seek prior approval from THDA using ample written and photo justification if uncertain whether or not a				
repair is defined as a health and safety measure.				
Required Testing/Inspection				
Concur with DOE Guidance ☑	Alternative C	Guidance □	Results in Deferral/Referral □	
DOE WAP H&S Funds ☑			Alternative Funds ☑	
Visual inspection of building structure and roofing for	damages th	at compromise buildin	g durability and to verify that portions of	
the home where weatherization will occur are safe for entry and performance of assessments, work, and inspections.				
		ing/Inspection	•	
Allowed with DOE WAP H&S Funds □			ed with Alternative Funds	
If DOE WAP H&S Funds are used for any "allowable" testing, detail them here.				
Prohibited Testing/Inspection				
		O, -		

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Concur with DOE Guidance ☑				
Using DOE WAP H&S funds for any testing/evaluation of structural materials by a third-party is prohibited.				
	Required Occu	pant Education		
Concur with DOE Guidance	e 🗹	Д	lternative Guidance 🏻	
Notify or	ccupant in writing of st	ructurally compromise	ed areas.	
	6 F – Codo	Compliance		
		Compliance		
		e Actions		
Allowed with DOE WAP H&S F			ed with Alternative Funds 🗹	
It DOE WAP F		r any "allowable" actio	ons, detail them here.	
		d Actions		
Concur with DOE Guidance ✓				
,		·	not directly related to the installation of	
specific weatherization measures ir	the home is prohibite	ed.		
 Using DOE WAP funds for work on condemned properties and properties where H&S conditions exist that cannot be 				
corrected under this guidance is pro	ohibited			
	Required Test	ing/Inspection		
Concur with DOE Guidance ✓	Alternative	Guidance □	Results in Deferral/Referral	
DOE WAP H&S Funds []		Alternative Funds	
	Visual in	spection.		
Allowable Testing/Inspection				
Allowed with DOE WAP H&S F	unds 🗆	Allow	ed with Alternative Funds 🗆	
If DOE WAP I	H&S Funds are used fo	r any "allowable" testi	ng, detail them here.	
	Required Occu	pant Education		
Concur with DOE Guidance	Concur with DOE Guidance 🗹 Alternative Guidance 🗆			
Inform occupant in writing of observed code compliance issues when it results in a deferral.				

6.6 – Electrical				
Required Actions				
Concur with DOE Guidance ✓	Alternative Guidance ☐ Results in Deferral/Referral ☐			
DOE WAP H&S Funds ☑		Alternative Funds ☑		
Provide sufficient over-current protection and damming prior to insulating building components containing knob and tube wiring,				
as required by the AHJ.				
Allowable Actions				
Allowed with DOF WAP H&S Funds ☑ Allowed with Alternative Funds ☑				

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MEASURE FUNDING

Allowable electrical repairs may be funded as health and safety measures or as incidental repairs. Clear documentation to the funding source and category is necessary to be retained in the client file.

GENERAL ELECTRICAL HAZARDS

Electrical repairs should be kept to a minimum as funding is limited and hazard repairs are meant to be associated to energy conservation measures.

Electrical hazards are primarily determined through visual inspection. Voltage drop and detection testing is allowed. **Examples of electrical hazards may include:**

- Presence and condition of knob-and-tube wiring.
- Wiring or fixture alterations that may create an electrical hazard.
- Breaker size and condition.

conditions warrant.

	Prohibited A	Actions		
	Concur with DOE	Guidance 🗹		
Using DOE WAP H&S funds for	major electrical repa	airs as defined b	y the Grantee's H&S plan is prohibited	
	Define "major	r" repairs		
Major repairs in this category exceed \$1,282.0	5, which is 15% of the	current WAP ACP	J. Measures that exceed this cost are	
considered major repairs. Weatherization will be	oe deferred unless a	Iternative fundir	g is used to make the necessary repairs.	
	Required Testing	g/Inspection		
Concur with DOE Guidance ☑	Alternative Gui	idance \square	Results in Deferral/Referral □	
DOE WAP H&S Funds ☑	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 ☑ Allowed with Alternative Funds ☑				
In addition to a visual inspection, a voltage meter may be used.				
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 				

6.7 – Fuel Leaks				
Required Actions				
Concur with DOE Guidance ☑	Alternative (Guidance □	Results in Deferral/Referral	
DOE WAP H&S Funds ☑ 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. Fuel leaks that are the responsibility of the occupant (vs. the utility) must be repaired before installing weatherization measures in the home. 				
Allowable Actions				

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Allowed with DOE WAP H&S Funds ☑ Allowed with Alternative Funds ☑				
Fuel leaks that are on the occupant-side of service may be repaired with DOE H&S funds, permitting they are within the				
minor repair cap.				
Pro	hibited Actions			
Concur v	vith DOE Guidance ☑			
 Using DOE WAP H&S funds to repair leaks that are 	the responsibility of the uti	lity to correct is prohibited.		
 Using DOE WAP H&S funds for environmental clear 	nup resulting from bulk fue	leaks is prohibited		
Require	d Testing/Inspection			
Concur with DOE Guidance ☑ Alterr	ative Guidance 🏻	Results in Deferral/Referral □		
DOE WAP H&S Funds ☑		Alternative Funds ☑		
Test all exposed gas lines, fittings, valves, and connections for fuel leaks from utility connection to the appliance				
throughout the home.	throughout the home.			
 Test all gas appliances for fuel leaks at all connections, valves, fittings, and burners. 				
 Conduct sensory inspection of all bulk fuels lines and storage tanks to determine if leaks exist. 				
Allowable Testing/Inspection				
Allowed with DOE WAP H&S Funds ☑ Allowed with Alternative Funds ☑		wed with Alternative Funds ☑		
Required testing is allowable.				
Prohibited Testing/Inspection				
Concur with DOE Guidance ☑				
Using DOE WAP H&S funds for environmental testing of soil or water is prohibited.				
Required Occupant Education				
Concur with DOE Guidance 🗹	Concur with DOE Guidance ☑ Alternative Guidance □			
Inform occupants in writing of fuel leak testing results, including specific location if fuel leaks are detected.				

6.8 – Gas Ovens/Stovetops/Ranges				
Allowable Actions				
Allowed with DOE WAP H&S Funds ☑ Allowed with Alternative Funds ☑				
Health and safety funds may be used to clean, tune, or repair gas ovens and stoves when inspection results indicate unsafe				
operation.				
Required Testing/Inspection				
Concur with DOE Guidance ☑	Alternative (Guidance Results in Deferral/Referral		
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				

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9-35ppm - Advise the homeowner/occupant that CO has been detected.

- Recommend that all possible sources of CO be checked and windows and doors opened.
- Where it appears that the source of CO is a permanently installed appliance, advise the homeowner occupant to contact a qualified professional.

36-69ppm - Advise the homeowner/occupant that elevated levels of ambient CO have been detected.

- Open windows and doors. Recommend that all possible sources of CO be turned off immediately.
- Where it appears that the source of CO is a permanently installed appliance, recommend that the appliance be turned off and advise homeowner – occupant to contact a qualified professional.

70ppm or greater – Immediate action required:

- Terminate the inspection.
- Notify the homeowner/occupant of the need for all building occupants to evacuate the building.
- Leave the building and the appropriate emergency services shall be notified from outside the home.

Allowable Testing/Inspection			
Allowed with DOE WAP H&S Funds ☑	Allowed with Alternative Funds ☑		
Energy auditors are required to use the combustion analyzer to verify PPM levels.			
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 – Hazardous Materials				
Required Actions				
Concur with DOE Guidance ☑ Alternative Guidance □ Results in Deferral/Referral □			Results in Deferral/Referral □	
DOE WAP H&S Funds	DOE WAP H&S Funds ☑ Alternative Funds ☑			
 Hazardous Waste Materials generated by weatherization work (e.g., refrigerant, asbestos, lead, mercury, CFL lighting bulb/ballasts, etc.) must be disposed of according to all local and federal laws, regulations, and guidelines, as applicable. Costs specifically related to disposal may be charged as a H&S expense. 				
 Subgrantees must document disposal requirements in contract language with the responsible party. 				
• Limited removal of pollutants that pose a risk to workers is required (e.g., flammable liquids, hazardous chemicals, and				

- other air pollutants) as defined the Grantee's H&S Plan. If removal cannot be performed or is not allowed by the occupant, the unit must be deferred.

Define "limited" removal of pollutants

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Lead

Disposal of lead-based paint (LBP) materials will comply with:

- Regulatory Status of Waste Generated by Contractors and Residents from Lead-Based Paint
- Collect paint chips, dust, dirt and rubble in plastic trash bags for disposal.
- Store larger LBP building parts in containers until ready for disposal.
- If possible, use a covered mobile dumpster (such as a roll-off container) to store LBP debris until the job is done.
- Contact local solid waste authorities to determine where and how LBP debris can be disposed of.

Asbestos

Disposal of asbestos will comply with:

- EPA Regulations 40 CFR Part 763, Subpart E Appendix D
- There must be no visible emissions to the outside air during waste transport.
- A transporter should ensure that the asbestos waste is properly contained in leak-tight containers with appropriate labels, and that the outside surfaces of the containers are not contaminated with asbestos debris adhering to the containers.

Mercury Disposal

Mercury containing materials will be disposed of according to:

- Tennessee Department of Environment and Conservation
- <u>Tennessee Department of Health</u>
 - Mercury Factsheet

Common mercury containing materials:

- Thermostats
- Incandescent and fluorescent lightbulbs
- Batteries

Refrigerant Disposal

Disposal of refrigerants will comply with:

- EPA Regulations 40 CFR Part 82, Subpart F under
 - Section 608 of the Clean Air Act.

	Allowabl	e Actions	
Allowed with DOE WAP H&S Fu	Allowed with DOE WAP H&S Funds ☑ Allowed with Alternative Funds ☑		
	Disposal compliant	with the above is al	lowed.
	Prohibite	d Actions	
	Concur with DC	E Guidance ☑	
Using DOE WAP H&	S funds for Lead, Asbe	stos, and Radon aba	atement is prohibited.
Required Testing/Inspection			
Concur with DOE Guidance 🗹	Alternative (ve Guidance ☐ Results in Deferral/Referral ☐	
DOE WAP H&S Funds ☑	1	Alternative Funds ☑	
Sensory inspection.			
Allowable Testing/Inspection			
Allowed with DOE WAP H&S Funds □ Allowed with Alternative Funds □			
No testing is allowed outside of sensory.			
Prohibited Testing/Inspection			
Concur with DOE Guidance ☑			
Using DOE WAP H&S funds for any testing for hazardous materials other than that specifically permitted in the asbestos, lead, and			

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radon sections of this document is prohibited.

Results in Deferral/Referral □

Alternative Funds ☑

Required Occupant Education				
Concur with DOE Guidance ✓	Alternative Guidance			
 Inform occupant in writing of hazards associated with haz 	zardous waste materials being generated/handled in the home.			
 Inform occupant in writing of observed hazardous conditi 	on and associated risks.			
 Provide occupant written materials on safety issues and p 	proper disposal of household pollutants.			
6.10 - Injury Preve	ntion of Occupants			
Allowable	e Actions			
Allowed with DOE WAP H&S Funds ☑	Allowed with Alternative Funds ✓			
Measures under this category may be funded as health and saf the funding source and category is necessary to be retained in the	he client file.			
Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Repairs necessary to allow safe access to areas necessary for weatherization may be performed using health and safety funds.				
The client file must document the need for the repair/replaceme performed.	ent and its connection to the weatherization work being			
Prohibite	ed Actions			
Concur with DC	DE 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				
Major repairs in this category exceed \$1,282.05, which is 15% of the current WAP ACPU. Measures that exceed this cost are considered major repairs. Weatherization will be deferred unless alternative funding is used to make the necessary repairs.				
Required Testing/Inspection				
	Guidance ☐ Results in Deferral/Referral ☐			
DOE WAP H&S Funds	Alternative Funds □			
Visually inspect for dangers that	t would prevent weatherization.			
	ting/Inspection			
Allowed with DOE WAP H&S Funds □	Allowed with Alternative Funds □			
If DOE WAP H&S Funds are used for any "allowable" testing, detail them here.				
Required Occupant Education				
Concur with DOE Guidance ☑	Alternative Guidance			
_	eatherization, inform occupant in writing of observed hazards and tion Notification Form" required by WPN 22-7.			
6.11 – Lead-Based Surface Coverin	gs (Paint, Varnishes, Roofing, etc.)			
Required Actions				

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Alternative Guidance □

Concur with DOE Guidance

✓

DOE WAP H&S 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.
 - o 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 ✓		
Testing to determine the presence of lead in paint that will be disturbed by weatherization measure installation is allowed with			
EPA-approved testing methods.			

If not tested, then all work in pre-1978 units must be completed by an RRP certified contractor and lead safe work practices must be followed. Lead-safe work must be justifiable and relevant to the area being disturbed. **Photo documentation is required**.

Testing methods must be economically feasible and justified. Subgrantees shall contact THDA with any questions on lead testing feasibility.

feasibility.			
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 for lead is allowable for pre-1978 dwellings.			
Required Occupant Education			
Concur with DOE Guidance ☑ Alternative Guidance □			
Follow pre-renovation education requirements per EPA RRP rules.			

6.12 – Mold and Moisture		
Allowable Actions		
Allowed with DOE WAP H&S Funds ☑ Allowed with Alternative Funds ☑		

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MEASURE FUNDING

Water damage repair and moisture source control may be funded as health and safety measures or as incidental repairs. Clear documentation to the funding source and category is necessary to be retained in the client file.

The costs of surface preparation where weatherization measures are being installed.

WATER DAMAGE AND MOISTURE SOURCE CONTROL

Water damage repair and source control measures are allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the energy conservation measures.

Deferral is required where severe mold and moisture issues cannot be addressed.

Source control is the first step in solving moisture problems. Examples of source control repairs include:

- Site drainage/run off modifications Regrading along a foundation wall to keep water away from building
- Gutter repair or minor replacement Reduce excess roof runoff along building walls and foundations
- Down spouts repair/replacement Reduce water pooling along building walls and foundations
- Flashing Eliminate or reduce water entry at windows or doors
- **Sump pumps** Removal of water in a basement or crawl space. Sump pits must be covered with an airtight lid and allow one way drainage of bulk water into the pit.
- Vapor barriers Cover exposed earth in crawlspaces and cellars to reduce migration of water vapor.
- Ventilation To remove water vapor inside dwellings.

MOLD

Jobs where mold is present may continue with weatherization if:

- The mold is located in an area outside the direct vicinity where weatherization work is taking place and/or won't be disturbed.
- The area containing mold is less than 10 total square feet (appx. 3' x 3') as referenced in EPA's Brief Guide to Mold and Moisture.

Per WPN 19-5, window and door repairs are allowable if it resolves a bulk water intrusion that causes a visible biological growth. Photo documentation is required.

Prohibited Actions				
	Concur with DC	DE Guidance ☑		
 Using DOE WAP H&S funds for mold 	l cleanup is prohibited	1.		
 Using DOE WAP H&S funds for wind 	low and door replacer	ments is prohibited		
Required Testing/Inspection				
Concur with DOE Guidance 🗹	Alternative Guidance □		Results in Deferral/Referral □	
DOE WAP H&S Funds D]	Alternative Funds □		
Visual assessment for moisture or mold damage including exterior drainage.			exterior drainage.	
Allowable Testing/Inspection				
Allowed with DOE WAP H&S Funds □ Allowed with Alternative Funds □				
If DOE WAP H&S Funds are used for any "allowable" testing, detail them here.				
Prohibited Testing/Inspection				
Concur with DOE Guidance ☑				
Using DOE WAP H&S funds for mold testing of any type is prohibited.				
Required Occupant Education				

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Concur with DOE Guidance	e ☑	Alternative	Guidance 🗆	
Provide occupant written notification of	Provide occupant written notification of identified mold/moisture hazards and infor		arding the associated hazard.	
6 12 Occum	ant Pre-existing or Poten	tial Haalth Condit	ions	
6.15 - Occup		liai nealth Colluit	10115	
Concur with DOE Guidance ☑	Required Actions Alternative Guidance	¬ Dos	ults in Deferral/Referral	
DOE WAP H&S Funds 5			e Funds 🗹	
When a person's health may be at its action and the delta are represented as the control of the delta are represented as the delta ar		ould constitute an H&S	s nazard, the occupant is	
required to take appropriate action	•			
Deferral, if occupant risk cannot be				
Allowed with DOE WAP H&S F	Allowable Actions	Allancad with Alt	amatina Funda 🗹	
			ernative Funds 🗹	
Subgrantees are able to	use H&S to purchase PPE (for w		to reduce some risks.	
	Required Testing/Inspection			
Concur with DOE Guidance ☑	Alternative Guidance		ults in Deferral/Referral	
DOE WAP H&S Funds		Alternativ	e Funds 🛚	
DOE WAP H&S Funds • Screen occupants for known or sus		Alternativ	e Funds 🛚	
 DOE WAP H&S Funds E Screen occupants for known or sus the audit, or both. 	pected health concerns either as	Alternativ part of initial applicati	e Funds □ on for weatherization, during	
DOE WAP H&S Funds • Screen occupants for known or sus	pected health concerns either as Pre-existing or Potential Health	Alternativ part of initial applicati Condition Screening Fo	e Funds □ on for weatherization, during	
 DOE WAP H&S Funds © Screen occupants for known or sus the audit, or both. This is done utilizing the "Occupant 	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Inspe	Alternativ part of initial applicati Condition Screening Fo	e Funds □ on for weatherization, during orm" required by WPN 22-7.	
 DOE WAP H&S Funds E Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F 	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insper	Alternativ part of initial applicati Condition Screening Folition Allowed with Alt	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds	
 DOE WAP H&S Funds E Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F 	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insper Funds H&S Funds are used for any "allo	Alternativ part of initial applicati Condition Screening Fortion Allowed with Alt wable" testing, detail t	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds	
 DOE WAP H&S Funds E Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F If DOE WAP I 	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insperiunds H&S Funds are used for any "allo Required Occupant Educ	Alternativ part of initial applicati Condition Screening Fortion Allowed with Altowable" testing, detail to	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds hem here.	
Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F If DOE WAP I	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insperums unds H&S Funds are used for any "allo Required Occupant Educe e	Alternativ part of initial applicati Condition Screening Fortion Allowed with Altowable" testing, detail to the street alton Alternative	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds hem here. Guidance	
Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F If DOE WAP I Concur with DOE Guidance Inform occupant in writing of any k	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insper Funds H&S Funds are used for any "allo Required Occupant Educate E nown risks and provide pre-weat	Alternative Alternative Alternative Alternative Alternative	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds hem here. Guidance	
Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F If DOE WAP I	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insper Funds H&S Funds are used for any "allo Required Occupant Educate E nown risks and provide pre-weat	Alternative Alternative Alternative Alternative Alternative	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds hem here. Guidance	
Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F If DOE WAP I Concur with DOE Guidance Inform occupant in writing of any k	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insper Funds H&S Funds are used for any "allo Required Occupant Educate E nown risks and provide pre-weat	Alternative Alternative Alternative Alternative Alternative	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds hem here. Guidance	
Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F If DOE WAP I Concur with DOE Guidance Inform occupant in writing of any k	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insper unds H&S Funds are used for any "allo Required Occupant Educ e nown risks and provide pre-weat point of contact information in w	Alternative Alternative Alternative Alternative Alternative	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds hem here. Guidance	
Screen occupants for known or sust the audit, or both. This is done utilizing the "Occupant Allowed with DOE WAP H&S F If DOE WAP I Concur with DOE Guidance Inform occupant in writing of any k	pected health concerns either as Pre-existing or Potential Health Allowable Testing/Insper Funds H&S Funds are used for any "allo Required Occupant Educate E nown risks and provide pre-weat	Alternative Alternative Alternative Alternative Alternative	e Funds on for weatherization, during orm" required by WPN 22-7. ernative Funds hem here. Guidance	

Concur with DOE Guidance ☑ Alternative Guidance □ Results in Deferral/Referral ☑ DOE WAP H&S Funds □ Alternative Funds □ Deferral of homes where infestation of pests cannot be reasonably removed or poses H&S concern for workers. **Allowable Actions** Allowed with DOE WAP H&S Funds □ Allowed with Alternative Funds □ If DOE WAP H&S Funds are used for any "allowable" actions, detail them here. **Allowable Testing/Inspection** Allowed with DOE WAP H&S Funds □ Allowed with Alternative Funds □ If DOE WAP H&S Funds are used for any "allowable" testing, detail them here. **Required Occupant Education** Concur with DOE Guidance ☑ Alternative Guidance Inform occupant in writing of observed conditions and associated risks.

6.15 - Radon

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Required Actions			
Concur with DOE Guidance ✓	Alternative Guidance □		Results in Deferral/Referral □
DOE WAP H&S Funds &	<u> </u>		Alternative Funds ☑
 Cover exposed dirt floors within the 	e pressure/thermal boι	indary with a sealed s	soil gas retarder
 Cover sump well/pits with airtight of 	covers		
 Implement ventilation as required k 	oy ASHRAE 62.2-2016		
	Allowable	Actions	
Allowed with DOE WAP H&S F	unds 🗹	Allow	ved with Alternative Funds ☑
PRECAUTIONARY MEASURES Exposed ground shall be covered with a v Mobile homes may have a vapor barrier if be installed in a mobile home. Because radon migrates through the soil, Installing plastic vapor barrier and Sealing the walls and floor of the because installing airtight sump pump lids installing mechanical ventilation	precautionary strateg sealing all seams.	ianent foundation. O	therwise, the vapor barrier will not ving:
Prohibited Actions			
Concur with DOE Guidance ☑			
Using DC	DE WAP H&S funds for	radon mitigation is pr	ohibited.
	Allowable Testi	ing/Inspection	
Allowed with DOE WAP H&S F	unds 🗹	Allow	ved with Alternative Funds □
Costs associated with radon testing using health and safety funds may be approved on a case-by-case basis from THDA. Subgrantees and technical workers shall refer to the Tennessee Department of Environment and Conservation on the availability of state funded radon kits. If known, or tested, radon levels are above 4 pCi/l, the unit will be deferred.			
Required Occupant Education			
Concur with DOE Guidance	e 🗹	,	Alternative Guidance 🛚
 Provide all occupants EPA's A Citize 	n's Guide to Radon and	d inform them of rado	on related risks.
 Occupants must sign an informed consent form prior to receiving weatherization services. 			

6.16 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers				
Required Actions				
Concur with DOE Guidance ☑	Alternative Guidance		Results in Deferral/Referral □	
DOE WAP H&S Funds	1	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 F	unds 🗹	Allowed with Alternative Funds ☑		

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SMOKE ALARMS

Installed in every bedroom and at least one in the common space on every floor of the unit.

Smoke alarms may be installed where not present or are inoperable.

Notify THDA prior to bid release if safety devices are necessary to be installed for occupants that are hearing impaired.

CARBON MONOXIDE ALARMS

All units are required to have an operable Carbon Monoxide Alarm.

Notify THDA prior to bid release if safety devices are necessary to be installed for occupants that are hearing impaired.				
FIRE EXTINGUISHERS				
Providing fire extinguishers is an allowable	using health and safe	ety funds when solid fu	el is present.	
Prohibited Actions				
	Concur with DO	DE 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 Testing/Inspection				
Concur with DOE Guidance ✓	Alternative	Guidance □	Results in Deferral/Referral	
DOE WAP H&S Funds [Alternative Funds □	
Verify operation and age of installed alarms.				
Allowable Testing/Inspection				
Allowed with DOE WAP H&S Funds ☑		Allowed with Alternative Funds ☑		
Check existing alarms for operation.				
Verify operation of installed alarms.				
Required Occupant Education				
Concur with DOE Guidance	e 🗹	A	lternative Guidance 🏻	
Provide occupant with verbal and written information on use of newly installed devices and the potential risks of not properly				
maintaining these devices.				

6.17 – Ventilation and Indoor Air Quality				
Required Actions				
Concur with DOE Guidance 🗹	Alternative Guidance ☐ Results in Deferral/Referral ☐		Results in Deferral/Referral □	
DOE WAP H&S Funds ☑	DOE WAP H&S Funds ☑		Alternative Funds ☑	
Install ventilation as required by ASHRAE 62.2 - 2016. If occupant refuses ventilation as required by ASHRAE 62.2, the home must				
be deferred.				
Allowable Actions				
Allowed with DOE WAP H&S Funds ☑		Allowed with Alternative Funds ✓		
Implementation of ventilation strategies of ASHRAE 62.2.				
Required Testing/Inspection				
Concur with DOE Guidance 🗹	Alternative Guidance		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 Funds □		Allowed with Alternative Funds □		
If DOE WAP H&S Funds are used for any "allowable" testing, detail them here.				

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Required Occupant Education				
Concur with DOE Guidance ☑	Alternative Guidance			
•	maintenance (including location of service switch and cleaning			
instructions) of ventilation system and components.				
 Provide occupant with equipment manuals for installed e 	quipment.			
 Include disclaimer that ASHRAE 62.2 does not account for 	high polluting sources or guarantee indoor air quality.			
C40 W				
6.18 – Wai	ter Heaters			
(see Combustion Appliances for c	ombustion related requirements)			
Allowabl	e Actions			
Allowed with DOE WAP H&S Funds ✓	Allowed with Alternative Funds ✓			
Water heater repair and replacement (within mino	r limits) is allowed. Replacement units must be like-for-like.			
Required Test	ing/Inspection			
Concur with DOE Guidance ☑ Alternative	Guidance ☐ Results in Deferral/Referral ☐			
DOE WAP H&S Funds □	Alternative Funds □			
 Visual inspection of all water heaters and related piping f 	or safety and leaks			
 See Combustion Appliances section for related combustion 	on safety testing requirements.			
Allowable Test	ing/Inspection			
Allowed with DOE WAP H&S Funds □	Allowed with Alternative Funds □			
If DOE WAP H&S Funds are used fo	r any "allowable" testing, detail them here.			
Required Occu	pant Education			
Concur with DOE Guidance ✓	Alternative Guidance			
 Appropriate use and maintenance of units. 				
Provide all paperwork and manuals for any installed equipment.				
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.				
	rker Safety			
	d Actions			
	Guidance Results in Deferral/Referral			
DOE WAP H&S Funds □	Alternative Funds □			
Adherence to all federal, state, and local worker safety regulations (e.g., OSHA, EPA).				
Allowable Actions				
Allowed with DOE WAP H&S Funds ☐ Allowed with Alternative Funds ☐				
If DOE WAP H&S Funds are used for any "allowable" actions, detail them here.				
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				
Major repairs in this category exceed \$1,282.05, which is 15% of the current WAP ACPU. Measures that exceed this cost are considered major repairs. Weatherization will be deferred unless alternative funding is used to make the necessary repairs.				
Allowable Testing				

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If DOE WAP H&S Funds are used for any "allowable" testing, detail them here.

Allowed with DOE WAP H&S Funds □

Allowed with Alternative Funds □

6.X – (Insert Additional H&S Items for Use of DOE WAP H&S funds)				
Required Actions				
Concur with DOE Guidance	Alternative Guidance		Results in Deferral/Referral □	
DOE WAP H&S Funds D]		Alternative Funds □	
Insert required item text				
	Allowable	e Actions		
Allowed with DOE WAP H&S Funds □		Allowed with Alternative Funds □		
If DOE WAP H&S Funds are used for any "allowable" actions, detail them here.			ons, detail them here.	
Prohibited Actions				
Concur with DOE Guidance				
What is prohibited				
Required Testing/Inspection				
Concur with DOE Guidance	Alternative Guidance □		Results in Deferral/Referral	
DOE WAP H&S Funds □		Alternative Funds □		
Insert required item text				
	Allowable Test	ing/Inspection		
Allowed with DOE WAP H&S Funds □		Allowed with Alternative Funds □		
If DOE WAP H&S Funds are used for any "allowable" testing, detail them here.				
Prohibited Testing/Inspection				
Concur with DOE Guidance				
	What	is prohibited		
Required Occupant Education				
Concur with DOE Guidance		Alternative Guidance		
Insert required item text				

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