

Weatherization Grantee Health and Safety (H&S) Plan- *Optional Template* Texas Department of Housing and Community Affairs

1.0 – GENERAL INFORMATION

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

Allowable Department of Energy (DOE) related health and safety (H&S) actions and expenditures are those necessary to maintain the physical well-being of both the occupants and/or weatherization workers where:

- Costs are reasonable as determined by The Department of Energy (DOE) in accordance with this approved Plan;
- The actions must be taken to effectively perform weatherization; or
- The actions are necessary as a result of weatherization work.

This plan will provide guidance to the Texas Weatherization Network. Health and Safety issues will be identified by Program Assessors during the initial assessment. Weatherization Crews (either subcontracted or in house) will perform the task(s) identified in the initial assessment and listed in the work order(s). Weatherization agencies and their representatives, including subcontractors, are required to take all reasonable precautions against performing work on homes that will subject the occupants or themselves to health and/or safety risks.

This health and safety plan is taken from a DOE approved template. Much of the text in this template is DOE prescribed boilerplate language and may not always apply to activities described in TDHCA's DOE plan.

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).

[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:

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

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.

A thorough review of historical H&S expenditure data along with network provided feedback to aid in the completion of the H&S Measures Matrix is analyzed annually to determine the H&S expenditure limit requested.

Cost Controls: The Department has built-in contract and reporting validations that do not allow any Subgrantee to report or request over the allowable H&S %. The validations are built into the budgeting system from a total overall statewide % as well. Furthermore, unless current/historical expenditure data support an increase and the increase is approved by DOE, TDHCA will limit H&S expenditures to the DOE identified 15% of Program Operations as identified within WPN 22-7.

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 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.

N/A-TDHCA strives to limit IRMs and H&S measures when feasible in an effort to maintain program focus/intent of energy efficiency.

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. Each notification must include 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 [Buildings Assessment of Radon Reduction Interventions with Energy retrofits Expansion Study \(The BEX Study\)](#)
 - 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

A Health & Safety Questionnaire/ Checklist was developed by the Department to aid Subgrantees with screening occupants for known or suspected health concerns and to identify H&S concerns related to components of their homes. Obtained information

must be taken into consideration when determining the units work scope to ensure occupant safety. The form must be located under Client and Field Assessment Forms on the Department Website:

- [Health & Safety Client Questionnaire & Inspection Checklist](#)

In addition to the Health & Safety Questionnaire/Checklist, TDHCA will update its Radon Informed Consent Form to align with DOE’s template form to ensure clients are informed of any potential hazards associated with radon in weatherized dwellings.

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

Subgrantee must discuss information obtained from the questionnaire with clients and identify potential measures being considered for installation to determine if any measures could have an effect on the occupant’s health. Precautions taken to avoid client health and/or safety should be well documented in the client file.

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

Weatherization agencies and their representatives, including subcontractors, are required to take all reasonable precautions against performing work on homes that will subject the occupants or themselves to health and/or safety risks. In cases where an occupant’s health is fragile, or an occupant has been identified to have a health condition, and/or the crew work activities would themselves constitute a health and/or safety hazard, the occupant(s) at risk shall be required to leave during the performance of the work activities. In cases where specific weatherization material(s) present an occupant health concern, crews/contractors may substitute a comparable alternative material that meets DOE specifications. If no safe alternative material meeting DOE standards is available, Subgrantees should receive case by case guidance from Department training staff. Precautions taken to avoid client health and/or safety should be well documented in the client file.

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

Required Actions

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

- 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:
 - are not listed and labeled as meeting ANSI Z21.11.2;
 - have an input rating of more than 40,000 BTU/hour;
 - 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 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 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 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 <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
<ul style="list-style-type: none"> • Replace, repair, or install primary air conditioning in homes where current occupants meet Grantee’s definition of “at-risk” <ul style="list-style-type: none"> ○ TDHCA’s defines an “at-risk” as a household containing at least one member that would meet the definition of Vulnerable Populations. Vulnerable Populations are elderly persons (60 or older), persons with a disability, and households with a child at or below the age of five. • Repair or removal of primary and secondary solid fuel heating appliances. • Replacement of unsafe primary solid fuel heating appliances. 	
Prohibited Actions	
Concur with DOE Guidance <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> • Using DOE WAP H&S funds for replacement or installation of secondary heat sources is prohibited. 	
Required Testing/Inspection	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> • Verify that primary heating systems are present, operable, and performing correctly. • Conduct combustion appliance testing and visual inspection of all combustion appliances and their related venting. • 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, 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. • 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	

TDHCA has adopted **ANSI/BPI-1200-S-2017** combustion testing standards and action levels with the following exception:

- In addition to BPI-1200 range top burners visual inspection requirement, each burner shall be tested to meet the current adopted **International Residential Code (IRC)** Range Top Burner CO threshold. Current threshold is **25ppm as measured (per burner)**.

All combustion testing processes must meet the requirements detailed in ANSI/BPI-1200-S-2017 standards.

Depressurization and Spillage assessment action levels shall be based on the following criteria:

- Spillage assessed at 2 minutes of main burner operation for warm vent applications and domestic water heaters (*utilize appropriate action outlined in TABLE D.1.A*)
- Spillage assessed at 5 minutes of main burner operation for cold vent except domestic water heaters (*utilize appropriate action outlined in TABLE D.1.A*)

TABLE D.1.A ACTION LEVELS FOR SPILLAGE IN COMBUSTION APPLIANCES The following actions shall be taken when spillage occurs under the specific circumstances detailed below.	
TEST RESULT	ACTION REQUIRED
Greatest CAZ depressurization occurs with the air handler on*	Conduct further analysis of the distribution system to determine if leaky ducts or other HVAC-induced imbalances are the cause of the spillage. If so, recommend distribution system repairs that will reduce or eliminate the CAZ depressurization.
Greatest CAZ depressurization occurs with door to CAZ closed, but is alleviated when door to CAZ is open*	Recommend measures to improve air transfer between the CAZ and the core of the house
The cause of spillage has been traced to excessive exhaust** independent of CAZ door position, air handler, or a problem with the flue†	Verify that sufficient combustion air is available per <i>ANSI Z223.1/NFPA 54</i> for gas-fired appliances and <i>NFPA 31</i> for oil-fired appliances or recommend verification by a qualified professional and/or Recommend further evaluation/service by a qualified professional to address the venting/combustion air issues
*In the case where both spillage and excessive CO are present, in addition to the specific recommendations above, recommend that the appliance be shut down until it can be serviced by a qualified professional. ** Refers to exhaust caused by mechanical ventilation and/or other means of exfiltration. †When a recommendation to replace atmospherically-vented combustion equipment inside the pressure boundary is made, and when cost-effective, recommend replacement with direct-vented, or power-vented equipment (or non-combustion equipment, such as a heat pump), which is ENERGY STAR®-labeled.	

Ambient CO and Lower Explosive Limit (LEL) assessment action levels shall be based on the following criteria:

- Ambient CO and LEL shall be monitored at all times while in the work environment utilizing a designated ambient monitor.
 - If the monitor indicates an ambient CO level of 70 ppm or greater, the auditor shall immediately terminate the inspection and notify the homeowner/occupant of the need for all building occupants to evacuate the building. The auditor shall immediately leave the building and the appropriate emergency services shall be notified from outside the home.
 - If the monitor indicates an ambient CO reading in the range of 36 ppm to 69 ppm, the auditor shall advise the homeowner/occupant that elevated levels of ambient CO have been detected. Windows and doors shall be opened. The auditor shall recommend that all possible sources of CO be turned off immediately. Where it appears that the source of CO is a permanently installed appliance, the auditor shall recommend that the appliance be turned off, and the homeowner/occupant shall be advised to contact a qualified professional.
 - If the monitor indicates an ambient CO reading in the range of 9 ppm to 35 ppm, the auditor shall advise the homeowner/occupant that CO has been detected and 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, the homeowner/occupant shall be advised to contact a qualified professional.

- If any measured concentrations of combustible fuel gas exceed 10% of the LEL, the auditor shall inform the homeowner/occupants of the unsafe condition and advise evacuation of the home. The auditor shall leave the home, and the appropriate emergency services and fuel gas providers shall be notified from outside the home.

CO measurement result action levels shall be based on the following criteria:

- CO measured at 5 minutes of main burner operation;
- CO level at or below threshold in **Section 7.9.5, Table 1** for the appliance being tested is ACCEPTABLE (**utilize appropriate action outlined in TABLE D.1.B**);
- CO level exceeding threshold in **Section 7.9.5, Table 1** for the appliance being tested is UNACCEPTABLE(**utilize appropriate action outlined in TABLE D.1.B**) ; and
- In addition to BPI-1200 range top burners visual inspection requirement, each burner shall be tested to meet the current adopted IRC Range Top Burner CO threshold. (**utilize appropriate action outlined in TABLE D.1.B**),
 - Current IRC Range Top Burner CO threshold is **25ppm as measured (per burner)**.

7.9.5 Table 1: CO Thresholds for Fossil Fuel-Fired Combustion Appliances

Table 1 CO Thresholds for Fossil-Fuel Fired Combustion Appliances	
Appliance	Threshold Limit
Central Furnace (all categories)	400 ppm air free ⁴
Boiler	400 ppm air free
Floor Furnace	400 ppm air free
Gravity Furnace	400 ppm air free
Wall Furnace (BIV)	200 ppm air free
Wall Furnace (Direct Vent)	400 ppm air free
Vented Room Heater	200 ppm air free
Unvented Room Heater	200 ppm air free
Water Heater	200 ppm air free
Oven/Broiler	225 ppm as measured
Clothes Dryer	400 ppm air free
Refrigerator	25 ppm as measured
Gas Log (gas fireplace)	25 ppm as measured in vent
Gas Log (installed in wood burning fireplace)	400 ppm air free in firebox

Note-Carbon Monoxide (CO) Air Free Air free emission levels are based on a mathematical equation (involving carbon monoxide and oxygen or carbon dioxide readings) to convert an actual diluted flue gas carbon monoxide testing sample to an undiluted air free flue gas carbon monoxide level utilized in the appliance certification standards. For natural gas or LP gas, using as-measured CO ppm and O2 percentage:

$$CO\ AF\ ppm = (20.9 / (20.9 - O_2)) \times CO\ ppm$$

Where:

- COAF ppm = Carbon monoxide, air-free ppm
- CO ppm = As-measured combustion gas carbon monoxide ppm
- O2 = Percentage of oxygen in combustion gas, as a percentage

TABLE D.1 B. ACTION LEVELS FOR CO IN COMBUSTION APPLIANCES

TEST RESULT	ACTION REQUIRED
Unacceptable CO level	Advise the homeowner/occupant that the appliance should be serviced immediately by a qualified professional Note: If ambient CO levels do not exceed 70 ppm, testing of other appliances and other audit procedures may continue at the discretion of the auditor
Acceptable CO level	No action required

Grantee Woodstove & Fireplace inspection/testing policy including actions/limits

Concur with DOE Guidance Alternative Guidance

- Fireplace or woodstove venting that is left operational after weatherization must meet current local or national standards or the 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

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

If asbestos containing material (ACM) is suspected within the components of the structure, the Subgrantee must determine if the material is friable, if there would be a disturbance of that material during the weatherization process, and determine the size of the area affected.

- Where suspected ACM will not be disturbed during the weatherization process, is not creating a hazard due to being friable, or vermiculite is not present, weatherization work may proceed at the Subgrantee’s discretion. If the Subgrantee proceeds with providing weatherization services, they must ensure of the following during the weatherization process:
 - All reasonable and necessary precautions are taken to prevent asbestos contamination in the home
 - Suspected ACM will not be cut, drilled, sanded, scraped, or otherwise disturbed
 - Measures taken to prevent suspected ACM disturbance and precautions taken to ensure of occupant/worker safety are documented/retained
- Where suspected ACM is present on small surfaces (pipes, ductwork, furnaces, other small covered surfaces, etc.) and must be addressed to safely weatherize the dwelling, limited encapsulation or removal of suspected ACM materials can be allowed by an appropriately trained asbestos control professional at the Subgrantee’s discretion.
 - Documentation that the hazard has been eliminated through remediation or encapsulation from the certified asbestos professional must be maintained in the client file.
 - Limited encapsulation or removal cost of suspected ACM material does not exceed \$750.
- Where suspected ACM will be disturbed during the weatherization process, prevent a major measure installation, the suspected ACM is creating a hazard due to being friable, or vermiculite is present, weatherization services must be deferred. Before the weatherization process can proceed, the client must provide documentation that a certified asbestos professional has certified the suspected ACM is free of asbestos, encapsulated, or the asbestos hazard has been remediated. A copy of the documentation must be kept in the client file.
 - An exception to this guidance is removal of suspected ACM siding in good condition for wall insulation installation where insulation cannot be installed from the interior of the structure. This exception is at the Subgrantee’s discretion and would require the following precautions:
 - All reasonable and necessary precautions are taken to prevent asbestos contamination in the home;
 - Siding will only be removed where necessary to install wall insulation;
 - Siding will not be cut, drilled, sanded, scraped, etc; and
 - Precautions are taken to not damage the siding during the removal and reinstallation process.

Grantee Blower Door Testing Policy When Suspected ACM Exists

Suspected ACM’s overall condition and potential for disturbing the suspected material through blower door testing will be evaluated.

- Blower door testing **allowed** where suspected ACM will not be disturbed during blower door testing process, is intact and not creating a hazard due to being friable, and/or vermiculite is not present.
- Blower door testing **not allowed** where suspected ACM may be disturbed during the blower door testing process, the suspected ACM is not intact and creating a hazard due to being friable, and/or vermiculite is present. Unit must be deferred until a certified asbestos professional has certified the suspected ACM is free of asbestos, encapsulated, asbestos hazard has been remediated, and blower door testing can proceed.

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).
- Limited encapsulation or removal of suspected ACM on small surfaces (pipes, ductwork, furnaces, other small, covered surfaces, etc.) by an appropriately trained asbestos control professional if necessary to safely weatherize the dwelling as defined by the Grantee’s H&S Plan.
 - TDHCA defines “Limited” as an encapsulation or removal of suspected ACM material that does not exceed \$750.

Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> Using DOE WAP H&S funds for general abatement/removal/or replacement of asbestos siding, thermal system insulation (TSI) or Transite, or vermiculite is prohibited. 		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> 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 Testing/Inspection		
Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Other than the required testing/inspection of suspected ACM, additional testing will not be allowed with H&S funding. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> Formally notify the occupant, and landlord if applicable, in writing: <ul style="list-style-type: none"> 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; 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 <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> 		
Allowed Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Limited remediation of conditions that may lead to or promote biological concerns and unsanitary conditions (e.g., repairing leaking sewage pipes, minor plumbing repairs, areas of water intrusion, etc.) as defined in the Grantee's H&S Plan <ul style="list-style-type: none"> TDHCA defines "Limited" as a remediation that does not exceed \$750. Limited cleaning of the workspace to protect the health and safety of workers and occupants as defined in the Grantee's H&S Plan <ul style="list-style-type: none"> TDHCA defines "Limited" as cleaning that does not exceed \$750. 		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> 		
Prohibited Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> Inform occupant in writing of observed biological and unsanitary conditions. 		

6.4 – Building Structure and Roofing (e.g., roofing, wall, foundation)

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Minor repairs to building structure or roofs as defined by the Grantee’s H&S plan.
 - Minor repairs are defined as repairs that are necessary for weatherization work to proceed and determined allowable by guidance outlined within WPN 19-5. All repairs invoiced to the H&S category must meet the following criteria:
 - Meet the definition of Health and Safety (H&S) measure as defined within WPN 19-5
 - Directed to be installed as a H&S measure by the guidance outlined within *Attachment 1 - WPN 19-5 Definition Flow Chart*
 - Roof, Door, or Window repairs are only allowed to be invoiced as an H&S measure if the repair resolves a bulk water intrusion issue that is the cause of visible biological and cost shall not exceed \$750.

Prohibited Actions

Concur with DOE Guidance

Using DOE WAP H&S funds for major repairs as defined by Grantee’s H&S Plan.

- Using DOE WAP H&S funds for building rehabilitation.

Define “major” repairs

- Major repairs are defined as home repairs that would generally be classified as building rehabilitation, does not meet the definition of incidental repair measure (IRM) as defined within WPN 19-5, and/or would normally be considered beyond the scope of weatherization. Examples of major repairs include roof replacement, foundation repair, extensive siding repair, major structural repair, etc.

Required Testing/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

- Other than required testing/inspection of building structure and roofing, additional testing will not be allowed with H&S funding

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

Alternative Guidance

- Notify occupant in writing of structurally compromised areas.

6.5 – Code Compliance

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Correction of preexisting code compliance issues triggered by weatherization measures being installed in a specific room or area of the home. If the installation of a weatherization measure triggers the correction of a preexisting code compliance issue, and is paid for with WAP funds, the specific code requirements with reference to the weatherization measure(s) that triggered the code compliance issue must be documented in the occupant file

Prohibited Actions

Concur with DOE 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

Alternative Funds

- Visual inspection.

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Testing/Inspection cost associated with code compliance is only an allowable H&S cost when required by a code official within the authority having jurisdiction (AHJ) and must be triggered by the installation of a weatherization measure.

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

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 DOE WAP H&S Funds

Allowed with Alternative Funds

- Minor electrical repairs (e.g., junction box covers, improper splices, exposed electrical connections, damaged/non-working switches/receptacles, etc.) to protect the occupant or workers from electrical hazards within the living area or in the immediate area where weatherization activities will occur, as defined by the Grantee's H&S plan.
 - TDHCA defines minor electrical repairs as repairs to electrical hazards that do not exceed \$750. In unforeseen limited instances, TDHCA reserves the right to provide case-by-case exceptions that will require prior written approval from TDHCA training staff. Training staff will factor in the reason for exception, reason of the additional cost, energy benefit provided by WAP services vs. non-energy benefit such as H&S/repair expenditures, and current reported Subgrantee H&S expenditure level in the approval/denial determination process. In cases the where excessive cost are determined to exceed the unit's energy benefit, are determined to be unreasonable, or the cost is prohibitive by available H&S funding within the Subgrantee H&S budget the unit will be deferred.

Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> Using DOE WAP H&S funds for major electrical repairs as defined by the Grantee’s H&S plan is prohibited 		
Define “major” repairs		
<ul style="list-style-type: none"> Major electric repairs are defined as extensive repairs that affect a large area, generally be classified as rehabilitation, and/or normally be considered beyond the scope of weatherization due to being cost prohibitive. Examples of major electrical repairs include total wiring replacement, replacement of greater than three (3) electrical circuits, etc. 		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> 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 <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Voltage drop and voltage detection testing. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> 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 <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> 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		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Replacement or repair of leaking bulk fuel tanks and/or lines if connected systems will remain after weatherization. Replacement of flexible appliance gas connectors that are not compliant with current fuel gas codes. 		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> Using DOE WAP H&S funds to repair leaks that are the responsibility of the utility to correct is prohibited. Using DOE WAP H&S funds for environmental cleanup resulting from bulk fuel leaks is prohibited 		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

<ul style="list-style-type: none"> • Test all exposed gas lines, fittings, valves, and connections for fuel leaks from utility connection to the appliance 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 <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
<ul style="list-style-type: none"> • Pressurized leak testing of complete gas distribution system to determine if a leak is present should LEL levels exceed 10% or sensory inspection lead Subgrantee staff to believe a concealed gas leak is present. 	
Prohibited Testing/Inspection	
Concur with DOE Guidance <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> • Using DOE WAP H&S funds for environmental testing of soil or water is prohibited. 	
Required Occupant Education	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> • 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 <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • Limited cleaning or repair of ovens/ranges/stovetops as defined by the Grantee’s H&S plan. <ul style="list-style-type: none"> ○ TDHCA defines “Limited” as cleaning or repair that does not exceed \$200. • Limited replacement of unsafe gas ovens/ranges/stovetops as defined by the Grantee’s H&S Plan. <ul style="list-style-type: none"> ○ TDHCA defines “Limited” as necessary replacements after a cleaning or repair did not resolve the gas oven(s)/range(s)/stovetop(s) identified hazard. Documentation of efforts to clean/repair the unit must be retained in the client file for future reference. 		
Prohibited Actions		
Concur with DOE Guidance <input type="checkbox"/>		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • 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		

TDHCA has adopted **ANSI/BPI-1200-S-2017** combustion testing standards and action levels with the following exception:

- In addition to BPI-1200 range top burners visual inspection requirement, each burner shall be tested to meet the current adopted **International Residential Code (IRC)** Range Top Burner CO threshold. Current threshold is **25 ppm as measured (per burner)**.
- Oven CO Thresholds 225 ppm as measured.
- Action Levels identified in Table D.1.B. ACTION LEVELS FOR CO IN COMBUSTION APPLIANCES below:

TABLE D.1 B. ACTION LEVELS FOR CO IN COMBUSTION APPLIANCES	
TEST RESULT	ACTION REQUIRED
Unacceptable CO level	Advise the homeowner/occupant that the appliance should be serviced immediately by a qualified professional Note: If ambient CO levels do not exceed 70 ppm, testing of other appliances and other audit procedures may continue at the discretion of the auditor
Acceptable CO level	No action required

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Other than the required testing/inspection of ovens/ranges/stovetops, additional testing will not be allowed with H&S funding.

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

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

- Limited removal of pollutants is defined and limited to the hazardous waste materials generated by the weatherization activities (e.g., refrigerant, asbestos, lead, mercury, CFL lighting bulb/ballast, etc.) as listed in the required actions above. Limited removal of additional pollutants is not allowed by Subgrantee staff. Removal of pollutants must be done by the client or a contracted professional prior to weatherization work being performed. If pollutants pose a risk to workers and removal cannot be performed by a professional or the client refuses to remove the pollutants, the unit must be deferred.

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

<ul style="list-style-type: none"> Limited removal of pollutants that pose a risk to the occupant as defined in the Grantee H&S Plan <ul style="list-style-type: none"> See Define “limited” removal of pollutants guidance above. 		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> Using DOE WAP H&S funds for Lead, Asbestos, and Radon abatement is prohibited. 		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Sensory inspection. 		
Allowable Testing/Inspection		
Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Other than the required sensory inspection of hazardous materials, additional testing will not be allowed with H&S funding. 		
Prohibited Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> Using DOE WAP H&S funds for any testing for hazardous materials other than that specifically permitted in the asbestos, lead, and radon sections of this document is prohibited. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> 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		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Minor repairs and installations (e.g., repairing stairs, replacing handrails, etc.) as defined by the Grantee’s H&S plan. <ul style="list-style-type: none"> TDHCA defines minor repairs as injury prevention of occupant repairs that do not exceed \$750. 		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> 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		
<ul style="list-style-type: none"> Major injury prevention of occupant repairs are defined as repairs that would exceed \$750. Example injury prevention of occupant repairs would include complete porch replacements, extensive repairs to walkways/porches/stair that exceed \$750, etc. 		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Visually inspect for dangers that would prevent weatherization. 		
Allowable Testing/Inspection		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Other than the required visual inspection of dangers that would prevent weatherization, additional testing will not be allowed with H&S funding. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	

- If identified hazardous conditions will not be corrected during weatherization, inform occupant in writing of observed hazards and associated risks utilizing the “Hazard Identification Notification Form” required by WPN 22-7.

6.11 – Lead-Based Surface Coverings (Paint, Varnishes, Roofing, etc.)

Required Actions

- | | | |
|--|---|---|
| Concur with DOE Guidance <input checked="" type="checkbox"/> | Alternative Guidance <input type="checkbox"/> | Results in Deferral/Referral <input type="checkbox"/> |
| DOE WAP H&S Funds <input checked="" type="checkbox"/> | Alternative Funds <input type="checkbox"/> | |

- 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.
 - 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 <input checked="" type="checkbox"/> | Allowed with Alternative Funds <input type="checkbox"/> |
|--|---|

- Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowable.

Prohibited Actions

- | |
|--|
| Concur with DOE Guidance <input checked="" type="checkbox"/> |
|--|

- 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 <input checked="" type="checkbox"/> | Allowed with Alternative Funds <input type="checkbox"/> |
|--|---|

- Testing to determine the presence of lead on surfaces that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods.
- Alternatively, if EPA-approved testing is not conducted, the Subgrantee may assume lead is present and work in compliance with EPA RRP rule.

Required Occupant Education

- | | |
|--|---|
| Concur with DOE Guidance <input checked="" type="checkbox"/> | Alternative Guidance <input type="checkbox"/> |
|--|---|

- 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

- Limited water damage repairs that can be addressed by weatherization workers are allowed when necessary to weatherize the home and to ensure the long-term stability and durability of the measures as defined in the Grantee’s H&S plan.
 - TDHCA defines limited water damage repairs as repairs that do not exceed \$750.
- Source control (i.e., correction of moisture and mold creating conditions) when necessary, to weatherize the home and to ensure the long-term stability and durability of the measures. Source control is independent of latent damage and related repairs. Source control includes, but is not limited to site drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, leaking roofs, vapor retarders, moisture barriers, 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 writing).

Prohibited Actions

Concur with DOE Guidance

- Using DOE WAP H&S funds for mold cleanup is prohibited.
- Using DOE WAP H&S funds for window and door replacements is prohibited

Required Testing/Inspection

Concur with DOE Guidance

Alternative Guidance

Results in Deferral/Referral

DOE WAP H&S Funds

Alternative Funds

- Visual assessment for moisture or mold damage including exterior drainage.

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Diagnostics such as material moisture content, or relative humidity measurements at the audit and/or final inspection.

Prohibited Testing/Inspection

Concur with DOE 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 occupant written notification of identified mold/moisture hazards and information regarding the associated hazard.

6.13 - Occupant Pre-existing or Potential Health Conditions

Required Actions

Concur with DOE Guidance

Alternative Guidance

Results in Deferral/Referral

DOE WAP H&S Funds

Alternative Funds

- When a person’s health may be at risk and/or WAP work activities could constitute an H&S hazard, the occupant is required to take appropriate action based on severity of risk.
- Deferral, if occupant risk cannot be mitigated.

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Occupant temporary relocation costs on a case-by-case basis.
- Grantee must define the allowable costs, relocations options, procedure for this case-by case determination, and what documentation is required from the client if DOE WAP funds are used for this purpose.
 - Allowable cost is defined as cost associated with relocation of occupant’s whose health is fragile, or an occupant has been identified to have a health condition, and/or the crew work activities would themselves constitute a health and/or safety hazard to allow for weatherization services to proceed when no other reasonable solution(s) exist.
 - Relocation options shall be limited to providing at risk occupant temporary lodging to not exceed the current approved GSA lodging rate (cost must be paid to directly to the temporary lodging vendor).
 - Procedure for cases-by-case approval are as follows:
 - Subgrantee are required to contact TDHCA training staff for prior approval before proceeding with temporary location of occupants. Training staff will factor in the reason for client relocation, weatherization measure(s)/practice(s) requiring the relocation, available client documentation, energy benefit provided by WAP services vs. non-energy benefit such as H&S/repair expenditures, and current reported Subgrantee H&S expenditure level in the approval/denial determination process. In cases the where relocation cost are determined to exceed the unit’s energy benefit, are determined to be unreasonable, or the Subgrantee does not have funding available to relocate the client within its existing H&S budget the unit will be deferred.
 - Required client documentation must be kept in client file and shall consist of the following:
 - Reason the client has to be relocated to include identification of the weatherization measure(s)/work practice(s) requiring the client to be relocated.
 - Documentation that a safe alternative material/work practice meeting DOE standards is not reasonably possible.
 - Any client volunteered support documents not violating HIPPA requirements from a certified medical professional.

Required Testing/Inspection

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

- Screen occupants for known or suspected health concerns either as part of initial application for weatherization, during the audit, or both.
- This is done utilizing the “Occupant Pre-existing or Potential Health Condition Screening Form” required by WPN 22-7.

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
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- Other than the required screening for known or suspected health concerns, additional screening/testing will not be allowed with H&S funding.

Required Occupant Education

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
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- 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

Required Actions

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

- 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 <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
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<ul style="list-style-type: none"> Limited pest removal is allowed only where infestation would prevent weatherization as defined by Grantee’s H&S Plan. <ul style="list-style-type: none"> TDHCA defines limited pest removal as removal that does not exceed \$200. Screening of windows and points of access and incorporating pest exclusion into air sealing practices to prevent intrusion. 	
Allowable Testing/Inspection	
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
<ul style="list-style-type: none"> Visual assessment of presence and degree of infestation and risk to worker . 	
Required Occupant Education	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> Inform occupant in writing of observed conditions and associated risks. 	

6.15 – Radon		
Required Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Cover exposed dirt floors within the pressure/thermal boundary with a sealed soil gas retarder Cover sump well/pits with airtight covers Implement ventilation as required by ASHRAE 62.2-2016 		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> 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 <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> Using DOE WAP H&S funds for radon mitigation is prohibited. 		
Allowable Testing/Inspection		
Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> Testing is not authorized in Texas WAP. Texas has no areas of “Highest Potentials,” according to the United States Environmental Protection Agency standards. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> Provide all occupants EPA’s A Citizen’s Guide to Radon and inform them of radon 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 <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> 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 Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	

<ul style="list-style-type: none"> • 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 alarms batteries if designed to be replaceable. • Provide fire extinguishers where solid fuel burning equipment is present. 		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> • 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 <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • Verify operation and age of installed alarms. 		
Allowable Testing/Inspection		
Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • Other than the required testing/inspection, additional testing/inspection will not be allowed with H&S funding. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>		Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> • 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 <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • 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 <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • N/A-Texas does not wish to request a variance to ASHRAE Implementation, adopt the most recent version of ASHRAE, and has no counties located within Climate Zone 1. 		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • 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 <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> • Other than the required testing/inspection, additional testing/inspection will not be allowed with H&S funding 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>		Alternative Guidance <input type="checkbox"/>

- 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 – Water Heaters

(see Combustion Appliances for combustion related requirements)

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Limited case-by-case replacement of water heaters if the water heater poses a life-safety risk to occupants (e.g., leaking primary tank, high CO measurements). Grantee must define “limited case-by-case” replacements if they utilize DOE H&S funds for this measure.
 - TDHCA defines limited case-by-case replacements of water heater as water heater replacements when the current appliance is creating moisture, combustion, and/or electrical related hazards that could impact occupant(s) Health and Safety. The Subgrantee must initially attempt to qualify existing Water Heater as an ECM. If the Water Heater does not rank, the Subgrantee may repair or replace the existing unit as a Health and Safety Measure with the caveat that there is a documented threat to the health and/or safety of the occupant(s).
- Minor safety repairs of water heaters (e.g., T&P valve piping, backflow prevention devices, expansion tanks) as defined by the Grantee’s H&S plan.
- Replace, repair, or install primary water heater heaters when existing primary water heater is unsafe, inoperable, or nonexistent.

Required Testing/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 for safety and leaks
- See Combustion Appliances section for related combustion safety testing requirements.

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Other than the required testing/inspection, additional testing/inspection will not be allowed with H&S funding.

Required Occupant 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.

6.19 – Worker Safety

Required Actions

Concur with DOE Guidance

Alternative 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

- Minor repairs and installations (e.g., repairing stairs, replacing handrails, etc.) as defined by the Grantee’s H&S Plan, are allowable when necessary to safely weatherize the dwelling.
 - TDHCA defines minor repairs as worker safety repairs that do not exceed \$750.
- Equipment purchases to protect the health and safety of the worker (e.g., Personal Protective Equipment (PPE), jobsite cleaning supplies).

Prohibited Actions

Concur with DOE Guidance

- Using DOE WAP H&S funds for **major** repairs as defined by the Grantee’s H&S Plan is prohibited.

Define “major” repairs

- Major worker safety repairs are defined as repairs that would exceed \$750. Example worker safety repairs are repairs to address/prevent falls, being stuck by objects, prevent dangers to electrical hazards, caught in-between hazards, extensive repairs to walkways/porches/stair that exceed \$750.

Allowable Testing

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Environmental and surveillance testing required by OSHA regulation.

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

Alternative Funds

Insert required item text

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

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 Testing/Inspection

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

Prohibited Testing/Inspection

Concur with DOE Guidance

What is prohibited

Required Occupant Education

Concur with DOE Guidance

Alternative Guidance

Insert required item text