

Weatherization Grantee Health and Safety (H&S) Plan- *Optional Template*

State of Ohio – Ohio Department of Development

1.0 – GENERAL INFORMATION

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

Development defines health and safety (H&S) measures as the cost of materials and labor needed to eliminate or reduce hazards existing before, or potentially resulting from the installation of weatherization materials. No H&S measures can be performed in a home unless Energy Conservation Measures (ECMs) are also part of the scope of work.

Subgrantees shall comply with all applicable state and local building codes and regulations.

Development encourages subgrantees to maintain coverage for Pollution Occurrence Insurance, but it is not mandatory.

Development tracks H&S labor and materials costs on its Building Weatherization Reports (BWRs). The BWRs are completed in OCEAN, making it possible to track and manage all H&S costs.

If a situation arises that is not specifically addressed in the H&S plan, a decision will be made on a case-by-case basis. The subgrantee must submit to their technical monitor, the necessity of the measure, cost justification, and photo documentation (if applicable). The technical monitor will review the information and respond to the subgrantee in writing within five business days.

Clients must be informed of any H&S risk discovered during the inspection process. In the case of a rental property, the property owner and/or authorized agent also must be notified.

As potential hazards are identified, they are to be analyzed in terms of their severity and how they will be addressed, up to and including deferral. H&S expenditures also must be considered reasonable, even if allowable as an expenditure for weatherization. This is determined by the energy auditor.

Clients may appeal these decisions to the subgrantee. If a potential hazard cannot be properly addressed using HWAP funds, the subgrantee must notify the client in writing (see Deferral section of V.1.2 for additional information).

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.

Ohio's H&S costs are budgeted separately and are not subject to the ACPU limitation. Ohio does not limit the H&S expenditures per unit. Subgrantees are limited by their annual H&S budget allocation.

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.

Incidental Repair Measures (IRMs) include:

- Glass replacement
- Door replacement
- Minor repairs to drywall or floors
- Moisture repairs
- Vapor retarder installation
- Flue repair
- Window and door replacements
- Electrical repairs
- Other minor repairs that preserve the integrity of the associated ECM(s)

Development does not distinguish “minor” from “major” repairs. Instead, Development limits the amount of the IRM(s) by the dollar amount of \$1,200. Incidental repairs are included in the per unit cost limitation and must be cost justified with the SIR for the package of measures.

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

- The energy auditor will complete the Home Visit Survey with the client which has a health screen section.
- The energy auditor will complete the Lead Notification form with the client.
- The energy auditor will complete the Mold Assessment and Release form with the client.
- The energy auditor will complete the Radon Informed Consent form with the client.
- The energy auditor will complete the Deferral of Service and Hazard Identification form with the client (if applicable).

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

- The energy auditor will review the forms listed above and determine if there is potential for the weatherization work to affect pre-existing health conditions of the occupant(s).

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

- The energy auditor will address any health concerns of the occupant(s). This may involve having them leave the home during some weatherization procedures or other measures to ensure the occupants safety.

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

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. 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;
 - Is in a bathroom or a bedroom without adequate combustion air;
 - Are not equipped with an oxygen-depletion sensing safety shut-off system;
 - 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).
- Unvented Space Heaters
 - All unvented, fuel fired primary heating units or unvented fuel fired water heaters that cannot be vented must be removed and replaced with properly vented units before proceeding with any weatherization work.
 - The replacement unit should be sized so it is capable of heating the entire dwelling unit, consistent with audit requirements described in 10 CFR 440.21(e)(2).
 - All unvented, secondary heating units that do not meet ANSI Z21.11.2 must be removed and properly disposed of prior to weatherization, but may remain until a replacement heating system is in place.
 - Repair of secondary unvented heating units is not allowed. Secondary unvented heating units that meet the ANSI Z21.11.2, but are not operating safely, must be removed and properly disposed of.
- Standalone Electric Space Heaters
 - Defined as heaters that do not have a permanent connection to electric power.
 - Repair, replacement, or installation is not allowed.
 - Removal is recommended.
 - Circuitry must be inspected to ensure adequate power supply for existing space heaters.
 - These heaters are not considered a primary heat source.
- Solid fuel burning appliances must:
 - Adhere to local code, including the venting.
 - Include a CO alarm installed in the combustion zone.
 - Offer client education and what to do if the alarm were to sound.
 - Worst case Combustion Appliance Zone (CAZ) depressurization testing.
 - Allow replacement for primary units but not secondary units.
- Manufactured Homes
 - 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. The U.S. Department of Housing and Urban Development (HUD) requires specific regulations for woodstoves in a manufactured home:
 - The stove model must have been tested and approved for use in a manufactured home.
 - Must have a permanently attached tag that indicates the stove's compliance with HUD standard UM-84.
 - A tested and listed prefabricated chimney system, connected directly to the stove and installed properly.

- A hard ducting system bringing outside combustion air directly to the stove's air inlet is required.
- The stove must be secured to the floor.
- Additionally, the manufacturer clearance and installation guidelines must be followed.
- 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.
- Masonry Chimneys
 - Masonry chimneys used by vented space heaters will be properly lined in compliance with the appropriate National Fire Protection Agency (NFPA) code or local AHJ if more stringent.
 - New equipment must meet local code requirements.
 - Masonry chimneys that have been retired (i.e., not being used by existing equipment) should be assessed for energy savings opportunities such as air sealing and capping to reduce thermal bypass.
- 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.
- The subgrantee must facilitate the proper disposal of the old heating unit and bulk fuel tanks.
- Wood, coal, and pellet fired furnace and boiler systems should be treated as vented heating systems.
 - The subgrantee must inspect the stove, chimney, and flue.
 - CAZ depressurization testing is required per the NREL SWS and NFPA 211.
 - Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant H&S is a concern.
 - Subgrantees must install replacement primary heaters and/or flues according to applicable codes, standards, and manufacturer's instructions.
 - Adequate combustion air must be provided.
 - Replacement of secondary heating units is not allowed.
 - Maintenance and repair of secondary heating units is allowed.
 - Repair of flues and proper installation (e.g., protection of combustibles), is required for both primary and secondary solid fuel heating appliances.
 - The system must be operational and inspected using all test protocols before any other weatherization begins.
- Fireplaces – Special Considerations
 - Fireplaces present special hazards that are affected by weatherization. If draft is poor, smoke may downdraft into the living space, causing poor indoor air quality. It is likely the occupants will ventilate in these situations.
 - Near the end of a wood fire, glowing coals will remain, radiating heat, while the draft lowers and allows the top of the chimney to cool, further reducing draft. The reduced oxygen available to the glowing coals causes production of carbon monoxide without the smoke that encourages space ventilation. This is a dangerous situation, as the carbon monoxide enters the living space due to the lowered draft.
 - For this reason, it is extremely important subgrantees make sure there is a carbon monoxide alarm installed in this CAZ and occupants are educated to the danger signs and what to do.
 - Worst-case CAZ depressurization testing will be conducted in spaces containing an operational fireplace. The worst-case depressurization of a space with a fireplace is -5 Pa.

Allowable Actions	
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>
<ul style="list-style-type: none"> • Correction of venting is allowed when testing or visual inspection indicates a problem. <ul style="list-style-type: none"> ○ This may be listed under incidental repair when it meets the definition of WPN 19-5. ○ Replacement, if necessary, of the furnace filter. • Replace, repair, or install primary air conditioning in homes with at-risk occupant(s). <ul style="list-style-type: none"> ○ At-risk occupants are required to have a signed doctor’s note indicating the occupants need for air conditioning prior to replacing, repairing, or installing primary air conditioning. 	
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. • 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. • The manufacturer approved initial startup procedures must be followed before any heating system is put into operation. • H&S inspections make sure that systems are present, operable, and performing. The H&S inspection of combustion appliances includes, but is not limited to, the following items: <ul style="list-style-type: none"> ○ The rated and measured British Thermal Units (BTU) input of each combustion appliance. ○ Complete electrical inspection of the furnace including proper grounding, polarity, wiring connections, breaker type and size, element amperage, and disconnect requirements. ○ Inspection of all combustion appliance fuel line leaks from the meter to the combustion appliance(s) is required. ○ An evaluation of the adequacy of combustion air for combustion appliances. ○ Verify there are no open return air ducts/leaks in the combustion appliance zone. ○ Combustion analysis testing of all combustion appliances (furnace/Domestic Hot Water Tank (DHWT)). ○ Inspection and replacement, if necessary, of the furnace filter. ○ Verify a properly installed temperature and pressure relief valve on the DHWT. ○ Measurement and adjustment of the water temperature, if necessary. ○ Pre- and post-worst-case draft testing utilizing Ohio’s worst-case draft form. ○ If ambient CO level is 70 ppm or greater, abort the test and evacuate the home. 	
Grantee Combustion Testing Action Levels	

- A pressure of -5 pa or more is not allowed in a CAZ with a fireplace.
- Test combustion appliances in order from lowest BTU/h input rating to highest BTU/h input rating.
- Ohio follows BPI-1200-S-2017 Standard Practice for Basic Analysis of Buildings for depressurization, spillage, and CO measurements taken during testing:
 - Action level for spillage- Table D.1.A
 - CO measurement threshold(s)- Table 1
 - Action levels for CO exceeding threshold(s) in Table 1- Table D.1.B

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.
- Subgrantees must conduct pre- and post-weatherization worst-case CAZ depressurization testing in spaces having a fireplace.
- The depressurization limit is -5 Pa in a CAZ containing any woodburning combustion appliance, including fireplaces.

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.

Grantee ACM policy

Asbestos- in siding, walls, ceilings, etc.

- The cost of permanently removing asbestos containing, cementitious siding materials remains prohibited; however, it is allowable to remove and reinstall such type of siding material to insulate the sidewalls of eligible dwelling units.
- This shall be performed by a person trained in safe work practices.
- Cutting, drilling, or sanding the cementitious siding material remains prohibited.
- The exterior wall surface and subsurface, floors, walls, and ceilings should be visually inspected for suspected ACM, prior to drilling or cutting.
- Subgrantees will assume asbestos is present when suspect unless testing proves otherwise.
- Testing is an allowable expense and must be tested by a licensed Asbestos Hazard Evaluation Specialist.

Asbestos- in vermiculite

Homes containing vermiculite insulation:

- Do not disturb or remove vermiculite.
- Removal is not an allowable expense.
- If unsure whether material contains asbestos, when warranted, a qualified asbestos professional will be contacted to assess the material and to sample and test as needed.
- Caution should be used when using a blower door in a home with vermiculite. When vermiculite is present, perform a blower door pressurization test, do not depressurize the interior of the home.
- If the test results indicate the presence of asbestos in the vermiculite, no work may occur in the area containing vermiculite, and a deferral of the job may be necessary.
- At no time should the vermiculite be disturbed unless testing determines it does not contain asbestos.
- Testing must be conducted by a licensed Asbestos Hazard Evaluation Specialist.
- Testing is an allowable expense.
- When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.

Homes containing vermiculite insulation that have been tested and cleared of asbestos:

- If the vermiculite insulation does not contain asbestos, normal weatherization activities may continue.
- A copy of the clearance test must remain in the client's file.
- Follow all H&S instruction from the inspector.
- Wear adequate PPE.

Suspected ACM's- pipes, furnaces, other small surfaces that will be disturbed through the course of weatherization work:

- Assume asbestos is present in suspect covering materials.
- When suspected friable ACM is present, take precautionary measures as if it is asbestos unless testing determines otherwise.
- When suspected friable ACM is present, blower door testing will only be allowed after encapsulation.
- Heating and distribution systems, including related piping, with suspect covering materials may be removed or encapsulated by a trained professional on a case-by-case basis.
- The minimum amount of suspect covering material shall be disturbed when replacing the heating unit.
- The cost of asbestos removal, or other less costly approaches such as encapsulation may be allowed and must be charged to the H&S budget category.
- "Friable" means the material can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand.
- Encapsulation by an appropriately trained asbestos control professional is allowed and should be conducted prior to blower door testing if the materials are friable.

<ul style="list-style-type: none"> When deferral is necessary due to asbestos, client/homeowner must provide documentation that a certified professional performed the remediation before work continues. 		
Grantee Blower Door Testing Policy When Suspected ACM Exists		
Subgrantees must take all reasonable and necessary precautions to prevent asbestos contamination in the home.		
<ul style="list-style-type: none"> Blower door should be done with pressurization only. Do not conduct a blower door test where friable suspected asbestos containing material is present, cannot be contained and may be introduced into the living space of the home. “Friable” means the material can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand. 		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>	
Suspected ACM’s (pipes, furnaces, other small surfaces that will be disturbed through weatherization work)		
<ul style="list-style-type: none"> Heating and distribution systems, including related piping, with suspect covering materials may be removed or encapsulated by a trained professional on a case-by-case basis. The minimum amount of suspect covering material shall be disturbed when replacing the heating unit. The cost of asbestos removal, or other less costly approaches such as encapsulation may be allowed and must be charged to the H&S budget category. Testing is an allowable expense. 		
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 checked="" type="checkbox"/>	Alternative Funds <input checked="" 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 checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>	
Testing is an allowable expense and must be tested by a licensed Asbestos Hazard Evaluation Specialist.		
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 checked="" type="checkbox"/>	Alternative Funds <input checked="" type="checkbox"/>	

- 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.
- Subgrantee audit staff have the responsibility as part of the energy audit/assessment process to identify biological hazards such as mold, odors, raw sewage, or rotting wood.
- Energy Auditors must take any conditions identified into consideration in the selection of measures appropriate for that building.
- In instances where the hazard is of such a severity as to cause undue safety or health concerns to crews, subcontractor staff, or occupants, the Energy Auditor is authorized to defer weatherization until the hazard has been addressed.
- Unsanitary conditions are occasionally present that put crews and staff at risk, and it is the responsibility of the client to correct them before work can begin. Subgrantees are not expected to address these conditions.
- These items may include, but are not limited to, pet or human feces in living areas, evidence of hoarding or “path houses” where access to measures is obstructed, rotting wood, etc.
- Addressing bacteria or viruses is not an allowable cost.

Allowed Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- The cost of removal or mitigation of conditions that may lead to or promote biological concerns and unsanitary conditions, is allowable to the extent that removal or mitigation is necessary to allow effective weatherization work, and/or to assure the immediate or future health of workers and clients.

Required Testing/Inspection

Concur with DOE Guidance

Alternative Guidance

Results in Deferral/Referral

DOE WAP H&S Funds

Alternative Funds

- Sensory inspection of interior, exterior, attics, and subspaces of the dwelling.

Prohibited Testing/Inspection

Concur with DOE Guidance

- DOE WAP H&S funds may not be used for testing of materials for biological contaminants.

Required Occupant Education

Concur with DOE Guidance

Alternative Guidance

- Inform occupant in writing of observed biological and unsanitary conditions.
- Provide information on how to maintain a sanitary home.
- When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

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

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Homes that require more than minor repairs must be deferred.
- Roof repairs are allowable as a H&S measure if it resolves a bulk water intrusion issue that is the cause of visible biological growth.
 - Biological growth must be documented with written explanation and photos of the biological growth.
 - Documentation must be kept in the client file.

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 is prohibited.
- Stand-alone roof replacements are prohibited.

Define “major” repairs		
<ul style="list-style-type: none"> Development sets the minor repair threshold at \$2,500, repairs greater than \$2,500 are considered major repairs and are not allowed. 		
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 checked="" type="checkbox"/>	
<ul style="list-style-type: none"> 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 <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> N/A 		
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/evaluation of structural materials by a third-party is prohibited. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> Notify occupant in writing of structurally compromised areas. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence. 		

6.5 – Code Compliance		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Proper venting of combustion appliances. Plumbing repairs (e.g., pressure tank when required). Electrical repairs. Correction of preexisting code compliance issues is not an allowable cost unless triggered by weatherization measures being installed in a specific room or area of the home. When correction of preexisting code compliance issues is triggered and paid for with WAP funds, cite specific code requirements with reference to the weatherization measure(s) that triggered the code compliance issue in the client file. Follow State and local or AHJ codes while installing weatherization measures, including H&S measures. 		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> 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 <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 checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Visual 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"> N/A 		
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 code compliance issues when it results in a deferral. 	

6.6 – Electrical

Required Actions

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

- 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 <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>
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- The cost to correct the presence of electrical system hazards, such as inadequately sized service, improperly grounded service, hazardously located service, inadequately sized or insufficient number of circuits, circuits in poor condition (i.e., live bare wires, etc.) and wiring inappropriate to its location, are allowable costs to the H&S budget category.
- A licensed electrical contractor shall be used to perform any electrical work needed to correct the hazard.
- In some instances, where an energy audit cost benefit analysis indicates a 1.0 or greater SIR, rewiring of the wall cavities or attics is included as part of the sidewall or attic insulation measure. This work is performed as required by state and local code.
- It is allowable to charge rewiring to the H&S budget category, or to defer the dwelling unit if cost prohibitive.
- It also is acceptable to install all other allowable measures dwelling unit if meaningful weatherization is still possible.

Prohibited Actions

Concur with DOE Guidance <input checked="" type="checkbox"/>
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- Additional load may not be added to an already overloaded service. Weatherization services must be deferred if the electrical problem cannot be corrected.
- The electric code prohibits the insulation of sidewall cavities with live knob and tube wiring present. In attics and other accessible areas, the insulation must be channeled around knob and tube wiring with a minimum of three inches of air clearance around the wiring.

Define “major” repairs

- Ohio does not define “minor” but limits the H&S electrical repairs to \$2,500.
- If the energy audit has a cumulative SIR of less than 1.0, the home will need to be deferred.

Required Testing/Inspection

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

- 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.
- Energy auditors will conduct a visual inspection for electrical issues and hazards.
- As part of the initial inspection process, inspectors must make note of the presence of knob and tube wiring, its condition, and test to see if it is still being used to distribute power.

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- N/A

Required Occupant Education

Concur with DOE Guidance

Alternative Guidance

- When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.
- Client education must be performed to explain the importance of basic electrical safety/risks and the hazards of overloading circuits.

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

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Fuel leaks that are the responsibility of the client must be repaired before weatherization may proceed.
- Test exposed gas lines from the utility coupling into and throughout the home.
- When a potential gas leak is detected with an electronic leak detector, it must be verified with a commercially available solution for detecting gas leaks.
- All fuel leaks repairs are allowable to the extent the H&S fuel leak repairs do not exceed \$2,500.

Prohibited Actions

Concur with DOE Guidance

- 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

Alternative 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.
- 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 checked="" type="checkbox"/>
<ul style="list-style-type: none"> When a potential gas leak is detected with an electronic leak detector, it must be verified with a commercially available solution for detecting gas leaks. 	
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"> When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence. Subgrantees must inform the client, in writing, of any fuel leaks. 	

6.8 – Gas Ovens/Stovetops/Ranges		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Replacement is not allowed, however, tune and clean are allowable. The cost to clean and adjust the gas pressure to eliminate the production of carbon monoxide in a cook stove (stove top burners or oven), must be charged to the H&S budget category. The installation of any parts to the cook stove (i.e., pressure regulator, orifices, flexible range connectors) must be charged to the H&S budget category. 		
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 gas ovens/ranges/stovetops is prohibited. 		
Required Testing/Inspection		
Concur with DOE Guidance <input 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 checked="" type="checkbox"/>	
<ul style="list-style-type: none"> All gas ranges are to be tested and inspected for gas leaks, condition, carbon monoxide, and burner condition. Check for CO in ambient air upon arrival. If the CO level is greater than 9 ppm, determine the source and correct the problem before proceeding. Check for gas leaks. If leaks are found, repair and document them before proceeding. Check the flexible range connector for the date ring. If the connector does not have a date ring and/or is brass, replace the connector. The connector it must connect outside of the cabinet and must pass through the wall of the range cabinet. Inspect range top burners for cleanliness and flame quality. For the oven bake burner (do not test a separate broil burner): <ul style="list-style-type: none"> Remove cooking utensils from oven. Make sure foil or other materials are not obstructing the holes in the oven floor. Turn on burner to the maximum temperature, e.g., 500oF, but not to “broil” or self-cleaning mode. After five minutes of the main burner operation, insert the probe into the oven vent far enough to get an undiluted exhaust gas sample. The CO emissions increase and then peak just after burner start up; they then fall to a momentary plateau before the burner shuts down as part of the duty cycle. The reading CO ppm must be taken during this stable plateau. 		
Define action levels for oven CO testing and resulting actions		

<ul style="list-style-type: none"> If the reading at steady state exceeds 225 ppm: <ul style="list-style-type: none"> Clean any rust and soot buildup on the spreader plate caused by flame impingement. Clean the burner if needed. Check for obstructed secondary air. If it is obstructed, remove the obstruction, and educate the client how to keep from obstructing the burner. Check the primary air adjustment and adjust if necessary or clear away any restrictions. Check to see that the burner is in alignment; it may require leveling the entire appliance. Advise the homeowner/occupant that the appliance should be serviced immediately by a qualified professional. 	
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"> N/A 	
Required Occupant Education	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> 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 <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 checked="" type="checkbox"/>
<ul style="list-style-type: none"> 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		
<ul style="list-style-type: none"> Removal of pollutants is allowable when they pose a risk to workers and are located in an area where weatherization activities will occur. 		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>		Allowed with Alternative Funds <input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Hazardous Waste Materials generated in the course of weatherization work shall be disposed of according to all local laws, regulations and/or Federal guidelines, as applicable. Document proper disposal requirements in contract language with responsible party. When a replacement refrigeration appliance is installed, the previous inefficient appliance must be removed and be properly destroyed. Contractors will properly dispose of these existing appliances and provide documentation of disposal. Appliances shall be recycled in accordance with the environmental standards in the Clean Air Act (1990), Section 608, as amended by the Final Rule. 40 CFR 82, May 14, 1993. Subgrantee staff, appliance vendor, manufacturing facility, or other entity that is used to recover the refrigerant from the old appliances must possess an EPA approved section 608 Type I license or an approved universal certification. 		
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 checked="" type="checkbox"/>	Alternative Funds <input checked="" 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"> N/A 		
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 checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Subgrantees must take all reasonable precautions against performing work on homes that will subject workers or occupants to H&S risks. Repairs of stairs and installation of handrails may be conducted only when necessary to effectively weatherize the home and may be charged according to the guidelines in WPN 19-5 to either IRMs or H&S miscellaneous budget categories when meeting those definitions. <ul style="list-style-type: none"> For example, if the stairs to the basement are broken and not safe to use, but the heating appliances are located in the basement, then it would be necessary to repair the stairs to effectively weatherize the home. When possible, subgrantees may make referrals to other programs or use leveraged funds to address these concerns. 		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<ul style="list-style-type: none"> Using DOE WAP H&S funds for major repairs, as defined by the grantee's H&S plan is prohibited. If the measures are not necessary to perform effective weatherization, they are not allowed. <ul style="list-style-type: none"> For example, if the stairway to the second floor was missing a handrail and the occupants needed a railing for stability when going up or down the stairs, this would not be allowed because it is not affecting the weatherization of the home. 		
Define "major" repairs		
<ul style="list-style-type: none"> Ohio does not define "minor" but rather limits the IRM by the dollar amount of \$2,400. 		
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 checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Energy auditors will observe if dangers are present that would prevent weatherization or potentially injure workers or occupants. 		
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"> N/A 		
Required Occupant Education		

Concur with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> 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 checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Subgrantees must comply with EPA's Lead Renovation, Repair and Painting Program (LRRP) rules when working in pre-1978 housing unless testing confirms the work area to be lead free. This includes, but is not limited to: <ul style="list-style-type: none"> 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. Documentation for training credentials must be onsite (i.e., copies of the training certificate or the certification as a renovator must be available). Proper record keeping using the Post Renovation Lead Recordkeeping Checklist must be completed by the subgrantee. Other subgrantee required paperwork includes: <ul style="list-style-type: none"> Copies of the EPA certified renovator and other installer’s certificates; Pictures of the containment area with a posting of the job number attached to the containment materials; and Picture(s) of the Approved Wipes alongside the Cleaning Verification Card showing that the cleaning process has passed, with the job number in the picture. Only those costs directly associated with lead safe work practices for surfaces directly disturbed during weatherization activities are allowable WAP H&S expenses. Ohio implements the approach defined by the EPA under the LRRP rule. <ul style="list-style-type: none"> Weatherization contractors, crew members or other persons installing ECMs for HWAP must earn the EPA certified renovator credential. Other entities performing work (e.g., Heating Ventilation and Air Conditioning (HVAC), plumbing, or electrical professionals) for HWAP and working in pre-1978 dwellings where the possibility exists to disturb painted surfaces of an area greater than six square feet per room for the interior, and/or 20 square feet for exterior work, must have an EPA certified renovator onsite. Weatherization contractors and other entities performing work in pre-1978 homes that will disturb painted surfaces of an area greater than six square feet per room for the interior, and/or 20 square feet for exterior work, must have an EPA Firm Certification. Even when the work has disturbed less than the de minimis amounts of paint as specified by the EPA, all work should be performed in a lead safe manner. 		

Allowable Actions

Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Lead-based paint (LBP) was used on the majority of dwelling units constructed prior to 1978. If LBP must be disturbed (cut, scraped, sawn, drilled, etc.) during the weatherization work, that work shall be done in a “lead safe” manner. 	

Prohibited Actions

Concur with DOE Guidance <input checked="" type="checkbox"/>
<ul style="list-style-type: none"> 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 checked="" type="checkbox"/>
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- The cost of LBP abatement is prohibited. However, the cost to test building materials for the presence of LBP and the cost of precautions to prevent causing a lead paint contamination problem while installing weatherization materials is allowable.
- EPA approved test kits must be used to determine the presence of lead in paint that will be disturbed HWAP measure installation.
- Testing methods must be economically feasible and justified.
- Job site set up and cleaning verification is conducted by a Certified Renovator.
- Lead safe work practices are verified during monitoring.

Required Occupant Education

Concur with DOE Guidance

Alternative Guidance

- All subgrantees are required to provide clients a copy of the EPA's "The Lead-Safe Certified Guide to Renovate Right", if applicable, prior to the start of work. This brochure will be given to an adult resident of each pre-1978 residential dwelling to be weatherized.
- Written acknowledgment by the adult resident is required, proving the adult resident received the brochure. A written certification by the subgrantee stating the brochure was delivered to an adult resident but the subgrantee was unsuccessful in obtaining a written acknowledgment, as directed in the publication, is also acceptable.
- The written acknowledgment or certification must be maintained in the client file.
- Ohio's deferral policy will be used in instances where the homeowner or landlord has notified the subgrantee of LBP issues existing or where lead poisoning has occurred to a member of the household. Referral is recommended to other programs designed to address the concerns.

6.12 – Mold and Moisture

Allowable Actions

Allowed with DOE WAP H&S Funds

Allowed with Alternative Funds

- Limited water damage repairs can be addressed by weatherization workers.
- Correction of conditions that may create moisture and mold are allowed, when necessary, in order to weatherize the home and to ensure the long-term stability and durability of the measures.
- However, existing mold and moisture issues greater than 10 square feet cannot be addressed and must be deferred.

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.
- Testing for mold to determine the type or severity is not an allowable cost.
- Surface preparation where weatherization measures are being installed (e.g., cleaning mold off window trim to apply caulk) must be charged as part of the ECM, not to the H&S budget category.
- An enclosed crawlspace or basement that has standing water for significant periods of time due to inadequate ground or surface water drainage; and
- Structures exhibiting signs of major moisture problems such as blistering paint and extensive mold/mildew on the inside of the house are beyond the scope of weatherization.

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.
- All subgrantees are required to complete an HWAP Mold Assessment and Release Form after the energy audit and prior to the work being started. Subgrantee staff will document with photos, any existing mold and mildew problem.

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"> N/A 	
Prohibited Testing/Inspection	
Concur with DOE Guidance <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Using DOE WAP H&S funds for mold testing of any type is prohibited. 	
Required Occupant Education	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> Provide occupant written notification of identified mold/moisture hazards and information regarding the associated hazard. Ohio's deferral policy will be used in instances where the remediation of the problem is beyond the scope of the weatherization program. When a deferral is required, the subgrantee should refer the homeowner to another program that can address the issue. 	

6.13 - Occupant Pre-existing or Potential Health 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 checked="" type="checkbox"/>	Alternative Funds <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> 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 <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Subgrantee intake staff should begin the discussion with the client as part of describing the program and what measures may be performed. The subgrantee must be cognizant of collecting this personal information and the protections that clients have with the Health Insurance Portability and Accountability Act of 1996. The energy auditor will explain what measures will be installed and that there may be some aspects of weatherization (i.e., dust during insulation) that may worsen existing health conditions. The energy auditor and client will have an opportunity to discuss precautions that can be taken to minimize risks. Alternative work protocols should be implemented by weatherization workers, if necessary, to avoid aggravating any existing health condition. It may be necessary for the client to leave the home during the work process. Refusal or inability to leave the home may result in deferral and/or referral to another local program, if available. 		
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 checked="" type="checkbox"/>	
<ul style="list-style-type: none"> 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 type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> N/A 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	

- Inform occupant in writing of any known risks and provide pre-weatherization screening form.
- Provide occupant with subgrantee point of contact information in writing.
- Energy auditors will explain the weatherization work and the potential conditions that may put the occupants with existing health conditions at risk.
- Energy auditors will provide clients with information of any known risks.
- When deferral is necessary, subgrantees must provide information in writing describing the conditions that must be met for weatherization to commence.

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 checked="" type="checkbox"/>	

- Pest infestation where it cannot be reasonably removed or poses a H&S concern for subgrantee staff or contractors is cause for deferral. Pests include but are not limited to fleas, roaches, rodents, and/or bed bugs.

Allowable Actions

Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>
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- Pest removal is allowed only where an infestation would prevent weatherization.
- It also is allowable for the subgrantee to address points of access to prevent intrusion. Examples include screening of attic gable vents to keep out flying insects and installing steel wool accesses to prevent rodents from penetrating.

Prohibited Actions

- Whole house extermination is not allowable.

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>
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- Energy auditors will assess the presence and degree of infestation and risk to workers.

Required Occupant Education

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
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- Subgrantees must inform the client in writing of the observed conditions and associated risks.
- If deferral is necessary, subgrantees must provide information in writing describing the conditions that must be met in order for weatherization to commence.

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 checked="" type="checkbox"/>	

- Cover exposed dirt floors within the pressure/thermal boundary with a sealed soil gas retarder.
- Cover sump well/pits with airtight covers.
- In instances where elevated levels of radon have been identified, the energy auditor will defer weatherization measures that could exacerbate the problem.
- 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 checked="" type="checkbox"/>
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- Seal and caulk penetrations, openings or cracks in below grade walls and floors that contact the ground.
- Ensure floor drains have traps and traps are not dry.

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 checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Testing is allowed but not recommended. All counties in Ohio have a moderate (24 pCi/L) to high (>4 pCi/L) potential for radon (see https://www.epa.gov/radon/find-information-about-local-radon-zones-and-statecontact-information#radonmap for a radon map of Ohio). 	
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. Each client must sign the Radon Informed Consent form prior to receiving weatherization services. This form must be retained in the client's file. 	

6.16 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers

Required Actions		
Concur with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input checked="" 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). A smoke alarm(s) must be installed in all dwellings without an operable alarm per manufacturer's instructions. 		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> Combination smoke and carbon monoxide alarms are allowable. Fire extinguishers are allowable for households when a solid fuel heating system is present (i.e., coal, wood). Only one unit may be installed into a home and must be charged to the H&S category. Fire extinguishers must be installed, according to the manufacturer's recommendations, be type ABC, UL listed, = 10 lb. and with a permanently affixed wall bracket to receive the extinguisher. The client must sign a written agreement to allow a fire extinguisher to be installed in the home and placed within sight of the solid fuel burning heat system when standing at the unit. The subgrantee must discuss and provide information on the use and upkeep of the extinguisher to the client. 		
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 checked="" type="checkbox"/>	Alternative Funds <input checked="" 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"> If DOE WAP H&S Funds are used for any "allowable" testing, detail them here. 		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	

- Provide occupant with verbal and written information on use of newly installed devices and the potential risks of not properly maintaining these devices.
- The client will be provided information on the operation of the alarms and any documentation included with the installation of new alarms.
- The subgrantee must discuss and provide information on the use and upkeep of the extinguisher to the client.

6.17 – Ventilation and Indoor Air Quality

Required Actions

Concur with DOE Guidance Alternative Guidance Results in Deferral/Referral

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

- Ohio will utilize the 15 CFM de minimis as the action level where additional ventilation will be provided.
- The installation of new ventilation fans and related ducting, controls, and passive air intakes that are designed to remove moisture and/or introduce fresh air to assure a safe and healthy level of air exchange is allowable as a H&S measure.

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

- N/A

Required Occupant Education

Concur with DOE Guidance Alternative Guidance

- Provide occupant with information on function, use, and maintenance (including location of service switch and cleaning instructions) of ventilation system and components.
- Provide occupant with equipment manuals for installed equipment.
- Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.
- The client must review and sign the ASHRAE 62.2 Notification Form and a copy must be maintained in the client file.

6.18 – Water Heaters

(see Combustion Appliances for combustion related requirements)

Allowable Actions

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

- Replacement of water heaters using H&S funds is allowed.
- Subgrantee must remove and properly dispose of the old water heater.

Required Testing/Inspection

Concur with DOE Guidance Alternative Guidance Results in Deferral/Referral

DOE WAP H&S Funds Alternative Funds

<ul style="list-style-type: none"> • Visual inspection of all water heaters and related piping for safety and leaks. • See Combustion Appliances section for related combustion safety testing requirements. • Subgrantees must ensure the replacement water heater unit drafts properly in worst-case depressurization scenario, and that the combustion analysis readings of the water heater unit are within the appropriate guidelines. 	
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"> • N/A 	
Required Occupant Education	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
<ul style="list-style-type: none"> • 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 <input 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"> • Adherence to all federal, state, and local worker safety regulations (e.g., OSHA, EPA). • Subgrantees shall comply with OSHA requirements for all weatherization activities to include the HAZ/COM 2012. • This includes the requirement that personnel working on the dwellings will utilize the appropriate personal safety equipment when necessary and receive training on the use/location of safety equipment. • When contractors are employed by subgrantees, those contractors shall comply with OSHA requirements as well. • Subgrantees that identify that a contractor may not be complying with OSHA requirements shall take all necessary steps to have the contractor rectify the situation, including notifying the contractor of the issue, identifying training opportunities, or terminating the contract with the contractor. • Costs related to OSHA compliance for HVAC, weatherization, or other contractors hired to address H&S issues shall be part of the bid price or job cost. • All retrofit installers, crew leaders, energy auditors, QCI's, heat technicians, and contractors are required to comply with confined space requirements. • The subgrantee is responsible for ensuring workers and subcontractors are properly trained and certified, when certification is required. 		
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 		
Prohibited Actions		
Concur with DOE Guidance <input type="checkbox"/>		
<ul style="list-style-type: none"> • N/A 		
Define "major" repairs		
<ul style="list-style-type: none"> • N/A 		
Allowable Testing		
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 		

6.20- Spray Polyurethane Foam (SPF)

Required Actions

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

- Subgrantees must use EPA recommendations (available online at: <https://archive.epa.gov/epa/saferchoice/quick-safety-tips-spray-polyurethane-foam-users.html>).
- When working within the conditioned space of a dwelling unit when SPF fumes become evident within the conditioned space.
- Clients may be asked to relocate when fumes are evident in conditioned spaces.
- When working outside the building envelope, isolate the area where foam will be applied, take precautions so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home.

Allowable Actions

Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
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- N/A

Prohibited Actions

Concur with DOE Guidance

- N/A

Required Testing/Inspection

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

- Testing will include checking for penetrations in the building envelope.
- Sensory inspection inside the home for fumes during foam application must also occur.
- Safety equipment associated with installation of this product may be charged to Equipment/Tools.

Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
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- N/A

Prohibited Testing/Inspection

Concur with DOE Guidance

- N/A

Required Occupant Education

Concur with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>
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- The client must be informed of plans to use two-part foam and the precautions that may be necessary.