

# Weatherization Grantee Health and Safety Plan

## Optional Template

**POLICY SUBMITTED WITH PLAN**

### 1.0 – GENERAL INFORMATION

Grantees are encouraged to enter additional information here that does not fit neatly in one of the other sections of this document.

### 2.0 – BUDGETING

Grantees are encouraged to budget Health & Safety (H&S) costs as a separate category and, thereby, exclude such costs from the average cost per unit cost (ACPU) limitation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. Grantees are reminded that, if H&S costs 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 approved energy audit.

Select which option is used below.

Separate Health and Safety Budget

Contained in Program Operations

### 3.0 – HEALTH AND SAFETY EXPENDITURE LIMITS

Pursuant to [10 CFR 440.16\(h\)](#), Grantees must set H&S expenditure limits for their Program, providing justification by explaining the basis for setting these limits and providing related historical experience.

Low percentages should include a statement of what other funding is being used to support H&S costs, while larger percentages will require greater justification and relevant historical support. It is possible that these limits may vary depending upon conditions found in different geographical areas. These limits must be expressed as a percentage of the ACPU. For example, if the ACPU is \$5,000, then an average expenditure of \$750 per dwelling would equal 15 percent expenditures for H&S.

15 percent is not a limit on H&S expenditures but exceeding this amount will require ample justification. These funds are to be expended by the Program in direct weatherization activities. While required as a percentage of the ACPU, if budgeted separately, the H&S costs are not calculated into the per-house limitation. DOE strongly encourages using the table below in developing justification for the requested H&S budget amount. Each H&S measure the Grantee anticipates addressing with H&S funds should be listed along with an associated cost for each measure, and by using historical data the estimated frequency that each measure is installed over the total production for the year.

It is also recommend reviewing recent budget requests, versus 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 state plan.

Should a Grantee request to have more than 15 percent of Program Operations used for health and safety purposes, DOE will conduct a secondary level of review. DOE strongly encourages use of this H&S template and matrix to help expedite this process





Deferral of services may be necessary if H&S issues cannot be adequately addressed according to WPN 17-06 guidance. The decision to defer work in a dwelling is difficult but necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved and/or alternative sources of help are found. If, in the judgment of the auditor, any conditions exist which may endanger the health and/or safety of the workers or occupants, the unit should be deferred until the conditions are corrected. Deferral may also be necessary where occupants are uncooperative, abusive, or threatening. Grantees must be specific in their approach and provide the process for clients to be notified in writing of the deferral and what conditions must be met for weatherization to continue. Grantees must also provide a process for the client to appeal the deferral decision to a higher level in the organization.

Grantee has developed a comprehensive written deferral/referral policy that covers both H&S, and other deferral reasons?

Yes  No

Where can this deferral/referral policy be accessed?

See Section 4.4 of the Indiana Policy and Procedures Manual, *Deferral Standards*:  
<http://www.in.gov/myihcda/weatherization.htm>.

## 6.0 – HAZARD IDENTIFICATION AND NOTIFICATION FORM(S)

Documentation forms must be developed that include at a minimum: the client's name and address, dates of the audit/assessment and when the client was informed of a potential H&S issue, a clear description of the problem, a statement indicating if, or when weatherization could continue, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options.

Documentation Form(s) have been developed and comply with guidance?

Yes  No

## 7.0 – HEALTH AND SAFETY CATEGORIES

For each of the following H&S categories identified by DOE:

- Explain whether you concur with existing guidance from WPN 17-07 and how that guidance will be implemented in your Program, if you are proposing an alternative action/allowability, or if the identified category will not be addressed and will always result in deferral. Alternatives must be comprehensively explained and meet the intent of DOE guidance.
- Where an Action/Allowability or Testing is "required" or "not allowed" through WPN 17-06, Grantees must concur, or choose to defer all units where the specific category is encountered.
- "Allowable" items under WPN 17-07 leave room for Grantees to determine if the category, or testing, will be addressed and in what circumstances.
- Declare whether DOE funds or alternate funding source(s) will be used to address the particular category.
- Describe the explicit methods to remedy the specific category.
- Describe what testing protocols (if any) will be used.
- Define minimum thresholds that determine minor and major repairs
- Identify minimum documentation requirements for at-risk occupants
- Discuss what explicit steps will be taken to educate the client, if any, on the specific category if this is not explained elsewhere in the Plan. Some categories, like mold and moisture, require client education.
- Discuss how training and certification requirements will be provided for the specific category. Some categories, like Lead Based Paint, require training.
- Describe how occupant health and safety concerns and conditions will be solicited and documented

Grantees may include additional H&S categories for their particular Programs. Additional categories must include, at a minimum, all of the same data fields as the DOE-provided categories. Two additional tables have been created to utilize.

## 7.1 – Air Conditioning and Heating Systems

### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral

Air Conditioning Unallowable Measure       Heating Unallowable Measure

### Funding

DOE       LIHEAP       State       Utility       Other

### How do you address unsafe or non-functioning primary heating/cooling systems?

If the heating system is operable, the system must be run through NEAT, MHEA, or **MuITEA** first to determine if it is allowable to be replaced as an energy conservation measure. As Indiana is considered a heating state, if the NEAT, MHEA, or **MuITEA** audit calls for a replacement, only the heating system would be replaced. "Red tagged," inoperable or nonexistent heating system replacement, repair, or installation is allowed with DOE funds and LIHEAP funds. Repairs to an air conditioning system may only be made when current operations of the AC system inhibit or affect the operation of the furnace, or when the cooling system is an integral part of the operation of the heating system, such as a heat pump (For instance, if the A-coil above a furnace is leaking water onto the heat exchanger, the A-coil can be replaced. Repairs to outside units is generally not allowable). Repairs can be charged as DOE Health and Safety cost or LIHEAP Mechanical cost. The subgrantee must first determine whether repairs can effectively be made to the heating system to enable it to operate safely, rather than require a replacement.

Sub-grantees are allowed to replace heating systems in the following circumstances:

- A verifiable condition exists that allows combustion gases to enter the living environment. For example, a breach in the heat exchanger that allows combustion gases to mix with the air in the ductwork.
- An improper application of a non-sealed combustion furnace installed in a manufactured home. Manufactured homes are required to have furnaces that draw their combustion air from outside the carriage. All new furnace installations in manufactured homes must be approved for use in manufactured housing.
- Heating systems can be replaced when the NEAT, MHEA, or **MuITEA** audit shows the replacement to meet an SIR of 1 or greater. Subgrantees must run a NEAT/MHEA/**MuITEA** audit when DOE funding is used to pay for a furnace replacement. The NEAT/MHEA/**MuITEA** workscope must be followed once a NEAT/MHEA/**MuITEA** audit has been performed on a structure.
- The cost of necessary repairs will exceed 50% of the cost of replacing the heating system.
- Replacement parts are no longer produced or available.
- If the fuel source is no longer available to the client, the Subgrantee must submit a request to IHCD requesting the change of the fuel source and heating system, and requests will be evaluated on a case-by-case basis.
- Subgrantees must request approval from IHCD prior to weatherizing homes without an existing heat source.

The subgrantee may not continue with weatherization work, particularly air sealing the structure until the combustion gases have been appropriately vented away from the living area. In the case of a plugged or non-functioning vent on a combustion appliance, appropriate steps must be taken to repair, or replace the vent.

Before a furnace is installed in a weatherization dwelling unit, the proper size of the furnace must be determined. Subgrantees will determine the most effective output size of the replacement heating system using a Manual-J based heat load calculation. NEAT/MHEA/**MuITEA** are not approved heat load calculation tools.

Furnace replacements in Indiana’s Weatherization Assistance Program are justified by utilizing Indiana's Heating Degree Days; the lower one-third of the state has a range of 4000 – 5499, and 5500 – 7000 for the upper two-thirds of the State. This climatic information is incorporated into Indiana’s NEAT, MHEA, and **MuITEA** runs as well as their Site Built and Mobile Home Waiver Audits.

### How do you address unsafe or non-functioning secondary heating systems, including unvented secondary space heaters?

Unsafe secondary units, including space heaters must be removed, rendered inoperable, or deferral is required.

Following WPN 17-7, secondary unvented units that conform to the safety standards of ANSI Z21.11.2 may remain as back-up heat sources. DOE is allowing this flexibility primarily to provide low income clients an emergency back-up source of heat in the event of electrical power outages. **In order to leave a secondary unit behind as secondary source of heat, the unit must pass the IHEDA Unvented Space Heater Inspection and be properly documented on the form.**

Secondary unvented 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 units is not allowed. Secondary unvented units that meet the ANSI Z21.11.2, but are not operating safely, must be removed and properly disposed of.

An unvented gas- or liquid-fueled space heaters that remain in a completed single-family house after weatherization shall:

- Not have an input rating in excess of 40,000 Btu/hour;
- Not be located in, or obtain combustion air from sleeping rooms, bathrooms, toilet rooms, or storage closets.

IHCDA does not permit any DOE-funded weatherization work on electric space heaters. Repair, replacement, or installation of electric standalone space heaters is not allowed. Removal of these space heaters is recommended. The energy auditor is required to perform a complete evaluation of the heating system on each unit weatherized. Part of this evaluation will be determining what modifications or replacements are required. Standalone electric heaters cannot be left in place as a client's sole source of heat. If provisions cannot be made for the installation of a permanent heating source, the home must be deferred. In instances where a new heating system is installed, the client will be educated on the new heating system and advised against using the stand-alone electric space heater. Should the stand-alone electric space heater be found to be unsafe for use in the client's home, it must be removed from use prior to weatherization proceeding.

Unvented gas- or liquid-fueled space heaters must be removed and properly disposed of prior to weatherization in **manufactured** homes.

**Indicate Documentation Required for At-Risk Occupants**

Auditors determine and document presence of "at-risk" current occupants when installing any Health and Safety measure.

**Testing Protocols**

Health and safety inspections **ensure** that systems are present, operable, and performing. The health and safety inspection of combustion appliances, including heating systems, includes the following items, **but are not limited to:**

- The rated and measured BTU input of each combustion appliance
- A complete electrical inspection of the furnace including proper grounding, polarity, wiring connections, fuse type and size, element amperage (electrical furnace), disconnect requirements and conduit requirements
- An inspection of **all** fuel lines in the home from the source to the combustion appliance or line termination. This includes **all** fittings, connections, shut-off valves, gas valves, sediment traps and end caps
- An inspection for spillage and a reading of the draft of gas/oil furnaces and water heaters (Completion of the appropriate Inspection Form)
- A visual check for flame interference
- A test of the setting and operation of the high limit control switch
- An evaluation of the adequacy of combustion air for combustion appliances
- A check that there are no open return air ducts/leaks in the Combustion Appliance Zone
- Carbon monoxide testing of all combustion appliances
- An inspection, and replacement if necessary, of the furnace filter
- **Worst case CAZ depressurization** and Indiana Daily Safety Test-Out Form

#### **Client Education**

- When deferral is necessary, provide information to the client, in writing, describing conditions that must be met in order for weatherization to commence. A copy of this notification must also be placed in the client file.
- Discuss appropriate use and maintenance of units.
- Provide all paperwork and manuals for any installed equipment.
- 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 safety information including how to recognize depressurization.

#### **Training**

- **WAP Health and Safety policy training on allowable activities.**
- **Licensing and/or certification for HVAC installers as required by authority having jurisdiction (AHJ).**
- **CAZ depressurization test and inspection training.**

## 7.2 - Asbestos - All

### What is the blower door testing policy when suspected Asbestos Containing Material (ACM) is identified?

Weatherization workers must recognize materials that may contain asbestos and avoid disturbing them. Per WPN 17-7, Subgrantees must not perform a blower door depressurization test in a building where friable asbestos, **suspected asbestos containing insulation** or vermiculite are present. Unless the suspect material has tested negative for asbestos, a blower door pressurization test must be performed, and must be documented in the client file.

- When suspected asbestos containing materials are present, assume that asbestos is present unless testing has determined otherwise.
- Sample collection and testing must be done by a certified asbestos control professional.
- Baseline environmental asbestos sampling is an allowable H&S cost.
- If the Subgrantee has deferred a home which then results in the owner removing asbestos containing materials, it is required that the proper documentation be provided to the Subgrantee prior to allowing weatherization services to move forward.

### 7.2a – Asbestos - in siding, walls, ceilings, etc.

#### Concurrence, Alternative, or Deferral

Concurrence with Guidance                       Alternative Guidance                       Results in Deferral

#### Funding

DOE                       LIHEAP                       State                       Utility                       Other

### How do you address suspected ACM's in siding, walls, or ceilings that will be disturbed through the course of weatherization work?

- The existence of asbestos siding that is in good condition does not prevent installing dense-pack insulation from the exterior.
- Siding may be removed and reinstalled in order to perform the ECM, and the associated costs may be charged as part of the ECM.
- **All trash and debris must be removed and disposed at the end of each day of in accordance with all applicable AHJ from the worksite by the person(s) completing dense-pack insulation from the exterior**
- General abatement of asbestos siding or replacement with new siding is not an allowable H&S cost. Abatement of asbestos siding or replacement with new siding may be considered an allowable State LIHEAP or LIHEAP cost on a case-by-case basis.

**If there is suspected asbestos containing insulation found in a unit and that suspected asbestos containing insulation will require disturbance in order to complete weatherization activities, then the suspected asbestos containing insulation must either (a) be tested by an AHERA professional to determine if asbestos is present or (b) must be assumed to contain asbestos. If it is tested and the results are positive, then either (a) the ACM must be removed in accordance with WPN 17-7 guidance prior to weatherization activities commencing or (b) the home must be deferred until the ACM can be removed in accordance with WPN 17-7.**

#### Testing Protocols

- Visually inspect exterior wall surface and subsurface, floors, walls, and ceilings for suspected ACM prior to drilling or cutting.
- Asbestos Hazard Emergency Response Act of 1986 (AHERA) sample collection and testing must be conducted by a certified tester.

#### Client Education



<ul style="list-style-type: none"> <li>• Inform the client in writing that suspected ACMs are present and what precautions will be taken to ensure the occupants' and workers' safety during weatherization.</li> <li>• Formally notify client in writing of results if testing was performed.</li> </ul>
<b>Training and Certification Requirements</b>
<ul style="list-style-type: none"> <li>• Asbestos certification is not required by IHCDA, and as such, IHCDA does not cover the cost for asbestos certification. Basic knowledge of asbestos is covered within the scope of other Weatherization trainings offered through INCAA.</li> <li>• Contractor training courses will teach safe practices for siding removal and replacement and how to identify asbestos containing materials.</li> <li>• How to identify suspected ACM.</li> <li>• Licensing/certification for removal and reinstallation of asbestos siding if required by AHJ.</li> </ul>

7.2b – Asbestos - in vermiculite				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>How do you address suspected ACM's in vermiculite that will be disturbed through the course of weatherization work?</b>				
<p>If there is vermiculite insulation found in a unit and the vermiculite insulation will require disturbance in order to complete weatherization activities, then the vermiculite insulation must either:</p> <p>(a) be tested by an AHERA professional to determine if asbestos is present or</p> <p>(b) must be assumed to contain asbestos.</p> <p>If it is tested and the results are positive, then either (a) the ACM must be removed in accordance with WPN 17-7 guidance prior to weatherization activities commencing or (b) the home must be deferred until the ACM can be removed in accordance with WPN 17-7.</p> <ul style="list-style-type: none"> <li>• When vermiculite is present, and it is determined that testing will be completed, testing is required by an AHERA or other appropriate asbestos control professional.</li> <li>• If asbestos is present, the home must be able to be weatherized without asbestos disturbance. If it can't, then it must be deferred.</li> <li>• Do not perform a blower door depressurization test.</li> <li>• A blower door pressurization test is allowable.</li> <li>• Use proper respiratory protection while in areas containing vermiculite.</li> <li>• Encapsulation by an appropriately trained asbestos control professional is allowed.</li> <li>• Removal is not an allowable cost.</li> <li>• When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.</li> </ul>				
Testing Protocols				
<ul style="list-style-type: none"> <li>• AHERA sample collection and testing must be conducted by a certified tester.</li> <li>• Baseline environmental asbestos sampling is an allowable H&amp;S cost.</li> </ul>				
Client Education				

<ul style="list-style-type: none"> <li>• Instruct clients in writing not to disturb suspected ACM.</li> <li>• Provide asbestos safety information to the client.</li> <li>• Formally notify client in writing of results if testing was performed.</li> <li>• When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.</li> </ul>
<b>Training and Certification Requirements</b>
<ul style="list-style-type: none"> <li>• Training on how to recognize vermiculite.</li> <li>• AHERA or state certification to conduct testing.</li> <li>• AHERA or other appropriate asbestos control professional certification/training for encapsulation.</li> </ul>

<b>7.2c – Asbestos - on pipes, furnaces, other small covered surfaces</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>How do you address suspected ACM's (e.g., pipes, furnaces, other small surfaces) that will be disturbed through the course of weatherization work?</b>				
<ul style="list-style-type: none"> <li>• Assume asbestos is present in suspect covering materials.</li> <li>• When suspected friable ACM is present, take precautionary measures as if it is asbestos unless testing determines otherwise.</li> <li>• Encapsulation by an appropriately trained asbestos control professional is allowed and may be conducted prior to blower door testing if the materials are friable.</li> <li>• Subgrantee may be allowed to remove by an appropriately trained professional on a case-by-case basis.</li> <li>• Grantees must state in the H&amp;S Plan what criteria the Grantee uses when reviewing requests.</li> <li>• Charge only those costs directly associated with the testing, encapsulation, or removal to the H&amp;S budget category.</li> <li>• When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.</li> </ul>				
<b>Testing Protocols</b>				
<ul style="list-style-type: none"> <li>• Assess whether suspected ACMs are present.</li> <li>• AHERA sample collection and testing is allowed and must be conducted by a certified tester.</li> </ul>				
<b>Client Education</b>				
<ul style="list-style-type: none"> <li>• Instruct clients in writing not to disturb suspected ACM.</li> <li>• Provide asbestos safety information to the client.</li> <li>• Formally notify client in writing of results if testing was performed.</li> <li>• When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.</li> </ul>				
<b>Training and Certification Requirements</b>				
<ul style="list-style-type: none"> <li>• How to recognize suspected ACM.</li> <li>• AHERA or other appropriate asbestos control professional certification/training is required to abate the ACM.</li> </ul>				

## 7.5 – Biologicals and Unsanitary Conditions (odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.)

### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral   
 Unallowable Measure

### Funding

DOE       LIHEAP       State       Utility       Other

### What guidance do you provide Subgrantees for dealing with biological and/or unsanitary conditions in homes slated for weatherization?

- Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed.
- Addressing bacteria and viruses is not an allowable cost.
- Deferral may be necessary in cases where conditions in the home pose a health risk to occupants and/or weatherization workers.

### Testing Protocols

Auditors will conduct a sensory inspection for biological and unsanitary conditions.

### Client Education

Auditors will inform the client, **in writing**, of observed conditions. Auditors will provide information on how to maintain a sanitary home and steps to correct deferral conditions. **When deferral is necessary, provide information in writing describing conditions that must be met in order for Weatherization to commence.**

### Training

Auditors receive training on how to recognize biological and unsanitary conditions and when those conditions are cause for deferral. Auditors are also trained in worker safety when coming into contact with biological and unsanitary conditions.

## 7.6 – Building Structure and Roofing

### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral

### Funding

DOE       LIHEAP       State       Utility       Other

### What guidance do you provide Subgrantees for dealing with structural issues (e.g., roofing, wall, foundation) in homes slated for weatherization?

- Building rehabilitation is beyond the scope of the Weatherization Assistance Program.
- Homes that require more than minor repairs must be deferred.

### How do you define “minor” or allowable structure and roofing repairs, and at what point are repairs considered beyond the scope of weatherization?

- Minor repairs and installation may be conducted only when the H&S of the occupant/worker(s) is at risk, or necessary to effectively weatherize the home; otherwise, these measures are not allowed.
- Allowable or “minor” structural and roofing repairs are considered as either H&S repair costs, or included as Incidental repairs.

### If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?

If a Subgrantee is using the Priority List and they have an IRM(s) that is greater than 17%, then a NEAT/MHEA/**MuITEA** run is required to justify the additional cost.

<b>Client Education</b>
<ul style="list-style-type: none"> <li>• Notify client in writing of structurally compromised areas.</li> <li>• When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.</li> </ul>
<b>Training</b>
Auditors are trained how to identify structural and roofing issues.

<b>7.7 – Code Compliance</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for dealing with code compliance issues in homes receiving weatherization measures?</b>				
<ul style="list-style-type: none"> <li>• 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.</li> <li>• When correction of preexisting code compliance issues is triggered and paid for with WAP funds, <b>document specific code requirements</b> with reference to the weatherization measure(s) that triggered the code compliance issue in the client file.</li> <li>• Follow State and local or AHJ codes while installing weatherization measures, including H&amp;S measures.</li> <li>• Condemned properties or dwellings where H&amp;S conditions exist that cannot be corrected under this guidance must be deferred.</li> </ul>				
<b>What specific situations commonly trigger code compliance work requirements for your network? How are they addressed?</b>				
<p>The following examples commonly trigger code compliance work requirements in Indiana:</p> <ul style="list-style-type: none"> <li>• Expansion tank installation for newly installed water heaters is a common code compliance issue.</li> <li>• <b>A wire splice is not in a junction box.</b></li> </ul> <p>In every case of code compliance, Indiana indicates that the local code requirement is the AHJ, and if it is determined that the code compliance issue cannot be resolved using traditional weatherization funds, the home must be deferred.</p>				
<b>Client Education</b>				
<ul style="list-style-type: none"> <li>• Inform client in writing of observed code compliance issues when it results in a deferral.</li> <li>• When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.</li> </ul>				
<b>Training</b>				
Auditors, QCs, and contractors are all instructed how to determine what code compliance may be required.				

<b>7.8 – Combustion Gases</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>

<b>Testing Protocols</b>
<p>Health and safety inspections <b>ensure</b> that systems are present, operable, and performing. The health and safety inspection of combustion appliances, include <b>but are not limited to</b> the following items:</p> <ul style="list-style-type: none"> <li>• <b>Combustion safety testing is required when combustion appliances are present.</b></li> <li>• <b>Test naturally drafting appliances for spillage and CO during CAZ depressurization testing pre and post-weatherization and before leaving the home on any day when work has been done that could affect draft (e.g., tightening the home, adding exhaust).</b></li> <li>• <b>Inspect venting of combustion appliances and confirm adequate clearances.</b></li> <li>• <b>Check DOE-approved audit to determine if the appliance can be justified as an ECM prior to replacement as an H&amp;S measure.</b></li> </ul>
<p><b>How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?</b></p>
<p>Crews are instructed to adhere to the BPI 1200 standards and the Indiana Field Guide with respect to carbon monoxide and combustible gases. If an immediate response is required, the Program Manager must be notified for further direction. The Subgrantee may not continue with weatherization work, particularly air sealing the structure, until the combustion gases/CO issues have been resolved.</p>
<b>Client Education</b>
<p>Clients <b>will be provided</b> with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.</p>
<b>Training</b>
<p>Training will be provided on the following:</p> <ul style="list-style-type: none"> <li>• <b>How to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measured CO.</b></li> <li>• <b>CO action levels.</b></li> </ul>

<b>7.9 – Electrical</b>		
<b>Concurrence, Alternative, or Deferral</b>		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
<b>Funding</b>		
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
<p><b>What guidance do you provide Subgrantees for dealing with electrical hazards, including knob &amp; tube wiring, in homes slated for weatherization?</b></p>		

The guidance provided is to follow the SWS, Indiana Field Guide, and the National Electric Code (NEC).

Per the electrical inspection section of the SWS-Aligned Indiana Weatherization Field Guide, auditors identify any knob and tube wiring found in the dwelling and test it to see if it is live.

Live knob and tube wiring can never be covered or surrounded by insulation as a result of any weatherization measure. Damming of knob and tube wiring prior to insulation is acceptable.

Existing insulation covering live knob and tube shall not be removed. Nor shall additional insulation be added above the knob and tube.

**Inspection** for the presence and condition of knob-and-tube wiring and check for alterations that might create an electrical hazard. Voltage drop and voltage detection tests are allowed.

**How do you define “minor” or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?**

- Minor repairs are generally defined as, but not limited to, the following: Installation of junction boxes, installation of junction box covers, flagging of junction boxes, replacement of broken outlets and switches, etc.
- The replacement of Installing a new electrical panel, new incoming service or completely rewiring a home are not considered minor electrical repairs.
- Knob and Tube wiring may be replaced as an Incidental Repair.

**If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?**

NEAT/MHEA/MuITEA must be run when the cost of IRM(s) exceed 17% of the total ECM cost.

**Client Education**

When electrical issues are the cause of a deferral, auditors will provide clients with information on over-current protection, overloading circuits, and basic electrical safety and risks.

**Training**

- Train how to identify electrical hazards.
- Instructed to avoid insulating over or dense packing around live knob and tube wiring while installing insulation in attics, floors, or walls.
- Instructed to always follow local (or AHJ) code whenever necessary.

**7.10 – Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants**

**Concurrence, Alternative, or Deferral**

Concurrence with Guidance       Alternative Guidance       Results in Deferral

**Funding**

DOE       LIHEAP       State       Utility       Other

**What guidance do you provide Subgrantees for dealing with formaldehyde, VOCs, flammable liquids, and other air pollutants identified in homes slated for weatherization?**

- Removal of pollutants is allowed and is required if they pose a risk to workers or occupants.
- If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred.
- Refer to Hazardous Materials Disposal section of WPN 17-7 for more information.

**Testing Protocols**

A sensory inspection for formaldehyde, VOCs, and other air pollutants <b>will be conducted.</b>
<b>Client Education</b>
<ul style="list-style-type: none"> <li>• Inform client in writing of observed hazardous condition and associated risks.</li> <li>• Provide client written materials on safety issues and proper disposal of household pollutants.</li> <li>• When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.</li> </ul>
<b>Training</b>
<b>Weatherization workers</b> are training on how to recognize potential hazards and when removal is necessary.

<b>7.11 – Fuel Leaks</b> <i>(please indicate specific fuel type if policy differs by type)</i>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>Remediation Protocols</b>				
<ul style="list-style-type: none"> <li>• When a <b>minor</b> gas leak is found on the utility side of service, the utility service must be contacted before work may proceed.</li> <li>• Fuel leaks that are the responsibility of the client (vs. the utility) must be repaired before weatherizing a unit.</li> <li>• Notify utilities and temporarily halt work when leaks are discovered that are the responsibility of the utility to address.</li> </ul>				
<b>How do you define allowable fuel leak repairs, and at what point are repairs considered beyond the scope of weatherization?</b>				
Allowable fuel leak repairs are considered repairs made to the fuel system when (non-utility responsible) leaks are found at any point during the weatherization process. <b>Fuel leaks found during the initial inspection that are beyond budgetary restraints may be deferred.</b>				
<b>Client Education</b>				
<b>Informed clients in writing if fuel leaks detected.</b>				
<b>Training</b>				
<b>Fuel leak testing and safety protocols are provided to all auditors, QCIs and HVAC professional.</b>				

<b>7.12 – Gas Ovens / Stovetops / Ranges</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for addressing unsafe gas ovens/stoves/ranges in homes slated for weatherization?</b>				

<ul style="list-style-type: none"> <li>When testing indicates a problem, Subgrantees may perform standard maintenance on or repair gas cooktops and ovens.</li> <li>Replacement is not allowed using DOE funds. LIHEAP or other alternative funds may be used to replace the unit.</li> </ul>
<b>Testing Protocols</b>
<ul style="list-style-type: none"> <li>Test for gas leaks in the gas piping in and around the range and oven.</li> <li>Turn the oven burner and then range burners to high one-by-one. Inspect the flames and test them for CO. For the oven burner, test at its outlet. For range burners, hold the test probe approximately 8 inches above the flame.</li> <li>For range tops, if after servicing, the CO level still exceeds 100 ppm <b>as measured on any one burner and at a minimum a kitchen rated CO alarm will be installed</b> in the same room as the appliance and perform client education on use of the range.</li> <li>For ovens, if after servicing, the CO level still exceeds 225 ppm <b>as measured, install a CO alarm in the same room as the appliance. Additionally, install a kitchen exhaust fan (minimum 100 cfm) to vent the CO to the exterior OR replace the range if a fan is not an option. Consider a kitchen rated CO alarm.</b></li> <li><b>Gas ovens, stovetops, and ranges</b> must be replaced using non-DOE funds.</li> </ul>
<b>Client Education</b>
<ul style="list-style-type: none"> <li>Never use a range burner or gas oven as a space heater.</li> <li>Never install aluminum foil around a range burner or oven burner because the foil could interfere with the flame.</li> <li>Burners should display hard blue flames. Call a service company if you notice yellow, white, wavering, or noisy flames.</li> <li><b>Inform clients of the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.</b></li> </ul>
<b>Training</b>
<b>Auditors, QICs, and HVAC professionals are provided with testing techniques and CO action level training.</b>

<b>7.13 – Hazardous Materials Disposal</b> <b>[Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.]</b> <i>(please indicate material where policy differs by material)</i>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<b>Client Education</b>				
<b>Inform client in writing of hazards associated with hazardous waste materials being generated/handled in the unit.</b>				
<b>Training</b>				
<p>The OSHA 10 hour training is required for all weatherization workers. All new weatherization workers must receive the appropriate OSHA training within nine months commencing 45 days from the date of hire. Training includes:</p> <ul style="list-style-type: none"> <li>Appropriate Personal Protective Equipment (PPE) for working with hazardous waste materials.</li> <li>Disposal requirements and locations.</li> <li>Health and environmental risks related to hazardous materials.</li> </ul>				
<b>Disposal Procedures and Documentation Requirements</b>				



- 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.

### 7.14 – Injury Prevention of Occupants and Weatherization Workers (Measures such as repairing stairs and replacing handrails)

#### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral

#### Funding

DOE       LIHEAP       State       Utility       Other

**What guidance do you provide Subgrantees regarding allowable injury-related repairs (e.g., stairs, handrails, porch deck board)?**

When necessary to effectively weatherize the home, workers may make minor repairs and installations necessary to weatherize a unit.

**How do you define “minor” or allowable injury prevention measures, and at what point are repairs considered beyond the scope of weatherization? Quantify “minor” or allowable injury prevention measures.**

Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise, these measures are not allowed. Examples of allowable minor repairs include broken stair risers or broken handrails which facilitate safely entering a portion of the home to complete weatherization work. Replacement or the addition of complete stairwells are not allowable. Building or installing new exterior steps or walkways are not allowable.

#### Training

All Weatherization Professionals are required to successfully complete an OSHA 10 course.

### 7.15 – Lead Based Paint

#### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral

#### Funding

DOE       LIHEAP       State       Utility       Other

#### Safe Work Protocols

The EPA is the governmental agency which regulates Lead. The Department of Energy guidelines adhere to the EPA Lead Renovation, Repair, and Painting Program. This program mandates the following, but is not limited to:

- Sub-grantees staff and contractors must follow EPA Lead: Renovations, Repair and Painting Program (RRP) when working in pre-1978 housing unless testing confirms the work area to be lead free
- Deferral is required when the extent and condition of lead-based paint in the **unit** would potentially create further H&S hazards
- Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowable
- Documentation in the client file must include:
  - Certified Renovator certifications;
  - Lead testing report completed by Lead Risk Assessor or Lead Inspector;
  - Client signed document verifying receipt of the EPA Renovate Right within 60 days of the start of the work;
  - EPA compliant record keeping checklist;
  - Photographs of lead safe work practices must include all tasks required on the Sample Renovations Recordkeeping Checklist
- Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods
- Jobsite set-up and cleaning verification by a Certified Renovator is required
- All employees and contractors working on pre-1978 homes must receive training to install measures in a lead-safe manner in accordance with the EPA and WPN 17-7 protocols and installation must be overseen by an EPA Certified Renovator

IHCDA monitoring will verify sub-grantees are utilizing proper lead safe protocols; will verify credentials for Lead Risk Assessors, Lead Inspectors, and RRP Certified Lead Renovators; and will verify each sub-grantee and subcontractor maintain the EPA Lead Safe Certified Firm status, and verify X-Ray Fluorescence Spectrometer (XRF) analyzer for resourcing and leak testing.

### **TESTING FOR LEAD**

All units built pre-1978 are required to be tested for the presence of lead prior to any work commencing, including work completed with deferral funds. Each sub-grantee has at least one XRF analyzer. Resourcing or purchasing an XRF is not an allowable DOE funded cost. The cost of purchasing a new XRF or Resourcing an existing XRF in which the cost exceeds \$5,000.00 requires written permission from IHCDA prior to the expenditure. In the event the sub-grantee XRF is out of commission, contact INCAA for coordination of a temporary loaner XRF. Each sub-grantee **must** have at least one staff member who is a licensed Lead Risk Assessor and/or who is a licensed Lead Inspector.

It is required the Lead Risk Assessor and/or Lead Inspector prepare a compliant report and that a copy of this report be placed in the client file. In the event a contractor is completing work in this home, the contractor must also be forwarded a copy of the Lead Inspector and/or Lead Risk Assessor report. In the event that weatherization professionals are working in the unit and they are required to disturb an area of the unit which has not been tested by the Lead Risk Assessor and/or Lead Inspector, a RRP Certified Lead Renovator may utilize an EPA approved lead test kit (<https://www.epa.gov/lead/lead-test-kits>) to determine if lead is present in the area to be disturbed. All Lead Inspectors, Lead Risk Assessors, and RRP Certified Lead Renovators must follow all regulations, guidelines, and laws set forth for their particular certification. At a minimum, IHCDA requires the following information for a lead risk assessor/lead inspector report:

- Lead Risk Assessor or Inspector license number and expiration date
- Property address
- Name of Lead Risk Assessor or Inspector
- The instrument used for lead testing
- Serial number of the instrument
- Description of areas tested
- XRF report

In addition to DOE, EPA, and SWS requirements, IHCDCA has established additional protocol which include safety with regard to the EPA's *de minimus* level of interior and exterior surfaces; and also IHCDCA no longer allows sub-grantees to *assume* the presence of lead based paint. IHCDCA addresses *de minimus* surface area through the "We Care About Lead" policy. The purpose of this policy is to ensure the utmost safety of weatherization professionals and occupants of Indiana Weatherization households. The safety protocol for the IHCDCA "We Care About Lead" policy is as follows:

- Conduct set up to prevent lead dust from contaminating the work area
- Wet/moisten the surface area being disturbed
- Limit access to the area where paint is being disturbed
- Ensure that all appropriate personal protective equipment is utilized
- Conduct necessary work
- Ensure proper disposal of trash and material is removed from the job site
- Provide photo of proof of using wet methods and appropriate set up.

All sub-grantees and contracted weatherization subcontractors performing work in units built prior to 1978 are required, but not limited to the following:

- Obtain and maintain Lead Safe Certified Firm status through the EPA. This must be renewed every five years. Sub-grantees may check their status by utilizing the following link <https://www.epa.gov/lead/lead-renovationabatement-firm-certification-application-or-update>. All certifications will be verified during the annual monitoring process
- An EPA approved Certified Renovator (RRP) must present during lead safe set up, must be readily available via in person, via telephone, or via email throughout the duration of the project; and be present at the completion of the project.
- The EPA RRP Certified Renovator must provide a completed Renovator Checklist to the sub-grantee Weatherization Program Manager or the manager's designee
- Provide meaningful photographs documenting all points of EPA leaded requirements
- Follow all requirements set forth by the EPA and all other AHJ
- Obtain confirmation of receipt (Appendix H - Client Consent Form) of the EPA-Renovate Right lead pamphlet from the owner, adult representative, or occupants (as applicable), or a certificate of mailing from the United State Postal Service (USPS) for all units built prior to 1978
- Ensure documentation that the required EPA education and documents have been provided to unit owner and applicable occupants
- Adhere to IHCDCA "We Care About Lead" policy
- Attend the Lead Safe Weatherization course held at INCAA
- Must use an EPA approved lead test or an XRF lead paint analyzer.
- Only devices with a posted PCS may be used for lead paint inspections. If you use a XRF without a current PCS or do not follow the requirements of the PCS, the work will be considered invalid and the work will

have to be re-done. To obtain the appropriate XRF Performance Characteristic Sheet, contact the National Lead Information Center Clearinghouse (1-800-424-LEAD) or [www.hud.gov/offices/lead/lbp/hudguidelines/allpcs.pdf](http://www.hud.gov/offices/lead/lbp/hudguidelines/allpcs.pdf)

- Ensure the program recordkeeping requirements are met, including retaining the following for a minimum of six years
  1. **Lead Risk Assessor or Lead Inspector** report certifying lead based paint **is or is not present**
  2. Records **confirming** distribution of EPA's lead hazard information pamphlet "**Renovate Right**" before starting renovation work for sample document
  3. Documentation of compliance with the requirements of the EPA when there is disturbance of lead paint at the unit  
<https://www.epa.gov/sites/production/files/documents/samplechecklist.pdf>

Sub-grantee staff and **contractors working in weatherization units** are trained on how to adhere to safe work practices ensuring adherence to the following, but not limited to, EPA, OSHA, **29 CFR 1910** and **29 CFR 1926**. **Sub-grantee must ensure weatherization staff are provided with and trained on the use of appropriate Personal Protective Equipment (PPE) per appropriate OSHA and CFRs regulations/laws as applicable.**

Sub-grantees performing weatherization services are encouraged to obtain Pollution Occurrence Insurance.

Sub-grantees are required to **ensure new weatherization employees are trained on lead safe work practices and provided with proper PPE**, at minimum, within the first three **(3)** months of employment to protect employees from the hazards of lead during weatherization work. **Sub-grantee weatherization professionals may not engage in lead renovation activities until they receive proper training and PPE.** It is highly recommended that all Program Managers and Executive Directors attend training related to lead and applicable PPE to ensure a minimum level of liability compliance understanding for the sub-grantee.

### **Renovator Certification**

To become a certified renovator an individual must successfully complete an eight-hour initial renovator training course offered by an accredited training provider (training providers are accredited by EPA; or by an authorized state or tribal program). The course completion certificate serves as proof of certification. **A refresher training for recertification is required every five years.** Each sub-grantee is required to have at least one EPA RRP Certified Lead Renovator on staff at all times. It is required by the EPA that "anyone who is paid to perform work that disturbs paint in housing and child-occupied facilities built before 1978 must be certified". This includes all firms, even sole proprietorships and special trade contractors including electricians, plumbers, painters, and carpenters. The designated RRP Certified Lead Renovator must follow all lead requirements set forth by the EPA. The position of RRP Certified Lead Renovator is a position which requires one who is competent to act in a leadership role, as well as one who is thorough and diligent with regard to ensuring the physical, photographic, and paper documentation compliance requirements are met. This is to ensure the safety of weatherization professionals, unit occupants, and also for the liability protection of the sub-grantee.

### **Testing Protocols**

<ul style="list-style-type: none"> <li>All units built pre-1978 are required to be tested for the presence of lead prior to any work commencing, including work completed with deferral funds. All sub-grantees have a minimum of one (1) XRF analyzer.</li> <li>In the event that weatherization professionals are working in the unit and they are required to disturb an area of the unit which has not been tested by the Lead Risk Assessor and/or Lead Inspector, a RRP Certified Lead Renovator may utilize an EPA approved lead test kit (<a href="https://www.epa.gov/lead/lead-test-kits">https://www.epa.gov/lead/lead-test-kits</a>) to determine if lead is present in the area to be disturbed.</li> </ul>
<b>Client Education</b>
<ul style="list-style-type: none"> <li>Follow pre-renovation education provisions for EPA RRP Program</li> <li>When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.</li> </ul>
<b>Training and Certification Requirements</b>
<ul style="list-style-type: none"> <li>All employees and contractors working on pre-1978 homes must receive training to install measures in a lead-safe manner in accordance with the SWS and EPA protocols, and installation must be overseen by an EPA Certified Renovator.</li> <li>Grantee Monitors and Inspectors must be Certified Renovators.</li> </ul>
<b>Documentation Requirements</b>
<ul style="list-style-type: none"> <li>All documentation required by EPA and IHCD as outlined in the IHCD Weatherization Policy and Procedure Manual.</li> </ul>

<b>7.16 – Mold and Moisture</b>				
(Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.)				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees for dealing with moisture related issues (e.g., drainage, gutters, down spouts, moisture barriers, dehumidifiers, vapor barrier on bare earth floors) in homes slated for weatherization?</b>				
<ul style="list-style-type: none"> <li>Limited water damage repairs that can be addressed by weatherization workers are allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures.</li> <li>Source control (i.e. correction of moisture and mold creating conditions) is allowed when necessary in order 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.</li> <li>Where severe Mold and Moisture issues cannot be addressed, deferral is required.</li> <li>Mold cleanup is not an allowable H&amp;S cost. These costs may be paid for using non-DOE funds, including State LIHEAP or utility funds.</li> <li>Surface preparation where weatherization measures are being installed (e.g., cleaning mold off window trim in order to apply caulk) must be charged as part of the ECM, not to the H&amp;S budget category.</li> </ul>				
<b>How do you define “minor” or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?</b>				
Moisture related issues can be addressed within the health and safety budget or as an IRM; however, mold clean-up is not an allowable health and safety cost.				
<b>Client Education</b>				

- Provide client written notification and disclaimer on mold and moisture awareness.
- Provide information on importance of cleaning and maintaining drainage systems.
- Provide information on proper landscape design and how this impacts site drainage and moisture control.
- When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

**Training**

Each sub-grantee’s crews or contractors receive specialized training in moisture awareness, ventilation, indoor air quality, and mold hazards. A mold awareness course is offered by the training and technical service provider and teaches Weatherization technicians and auditors how to identify the conditions that promote mold growth. This class identifies treatment options for less extensive mold conditions and best Weatherization practices to prevent mold growth. This class also discusses the health aspects related to mold and moisture issues for both workers and clients. This course is intended to prepare technicians and auditors to know how to safely proceed with Weatherization services or when to defer the home until serious mold and moisture conditions have been eliminated.

**7.17 – Pests**

**Concurrence, Alternative, or Deferral**

Concurrence with Guidance       Alternative Guidance       Results in Deferral

**Funding**

DOE       LIHEAP       State       Utility       Other

**What guidance do you provide Subgrantees for dealing with pests and pest intrusion prevention in homes slated for weatherization?**

- Pest removal is cause for deferral unless other funds are available to cover the cost of extermination.
- Pest removal is allowed only where infestation would prevent weatherization.
- Screening of windows and points of access, and incorporating pest exclusion into air sealing practices to prevent intrusion is allowed.

**Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred**

Infestation of pests may be cause for deferral where it poses H&S concern for workers and/or occupants.

**Testing Protocols**

Assessment of presence and degree of infestation and risk to workers and occupants.

**Client Education**

- Sub-grantees will inform clients in writing of the observed condition and associated risks.
- When deferral is necessary, provide information in writing describing condition that must be met in order for weatherization to commence.

**Training**

Weatherization Professional are trained how to assess the presence and degree of infestation, associated risks, and need for deferral through various courses by the training provider. These courses include but are not limited to competency maintenance refreshers, client education, DOE WPN 17-7.

**7.18 – Radon**

**Concurrence, Alternative, or Deferral**

Concurrence with Guidance       Alternative Guidance       Results in Deferral

**Funding**

DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>What guidance do you provide Subgrantees around radon?</b>				
<ul style="list-style-type: none"> <li>• Radon mitigation is not an allowable H&amp;S cost.</li> <li>• Clients must sign an informed consent form prior to receiving weatherization services. This form must be kept in the client file.</li> <li>• Work scope <b>must</b> include precautionary measures based on EPA Healthy Indoor Environment Protocols for Home Energy Upgrades, to reduce the possibility of making radon issues worse.</li> <li>• Whenever site conditions permit, cover exposed dirt floors within the pressure/thermal boundary with 6 mil (or greater) polyethylene sheeting, lapped at least 12" and sealed with appropriate sealant at all seams, walls and penetrations.</li> <li>• Other precautions may include, but are not limited to, sealing any observed floor and/or foundation penetrations, including open sump pits, isolating the basement from the conditioned space, and ensuring crawl space venting is installed.</li> </ul>				
<b>Testing Protocols</b>				
Radon testing is not currently required by IHCDA. Sub-grantees may test at their discretion in areas with high radon potential. <b>*Radon mitigation is not an allowable Health and Safety cost.</b>				
<b>Client Education</b>				
<ul style="list-style-type: none"> <li>• Provide all clients EPA's A Citizen's Guide to Radon and inform them of radon related risks.</li> <li>• Informed consent form must include: <ul style="list-style-type: none"> <li>- Information from the results of the IAQ Study that there is a small risk of increasing radon levels when building tightness is improved;</li> <li>- A list of precautionary measures WAP will install based on EPA Healthy Indoor Environment Protocols;</li> <li>- Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety; and</li> <li>- Confirmation that EPA's A Citizen's Guide to Radon was received and radon related risks discussed with the client.</li> </ul> </li> </ul>				
<b>Training and Certification Requirements</b>				
<ul style="list-style-type: none"> <li>• Auditors, assessors and inspectors must have knowledge of radon, what it is and how it occurs, including what factors may make radon worse, and precautionary measures that may be helpful.</li> <li>• Workers must be trained in proper vapor retarder installation.</li> <li>• A zonal map can be located at <a href="http://www.epa.gov/radon/pdfs/zonemapcolor.pdf">http://www.epa.gov/radon/pdfs/zonemapcolor.pdf</a></li> </ul>				
<b>Documentation Requirements</b>				
A copy of the client-signed informed consent form must be kept in the client file.				

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

<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>What is your policy for installation or replacement of the following:</b>				

Smoke Alarms:
<ul style="list-style-type: none"> <li>• Install smoke alarms in accordance with UL 217 in units where they are not present or are inoperable.</li> <li>• Each unit is required to have at least one smoke alarm on each level near the bedrooms.</li> <li>• All smoke alarms will be installed per manufacturer specifications.</li> <li>• If battery powered, long-life lithium batteries are preferred.</li> <li>• Auditors must check the functionality and expiration date on existing smoke alarms.</li> </ul>
Carbon Monoxide Alarms:
<ul style="list-style-type: none"> <li>• All weatherized units must contain at least one CO alarm per floor.</li> <li>• Auditors must check the functionality and expiration date on existing smoke alarms.</li> <li>• Install CO alarms in all dwellings that don't have functional alarms.</li> <li>• All CO alarms must be installed per manufacturer specifications.</li> </ul>
Fire Extinguishers:
Where solid fuel burning equipment is present, fire extinguishers may be provided as an allowable H&S measure.
<b>Testing Protocols</b>
<ul style="list-style-type: none"> <li>• Check existing alarms for operation and expired expiration date.</li> <li>• When solid fuel burning equipment is present and there is an existing fire extinguisher present, check the expiration date.</li> <li>• Verify operation of installed alarms.</li> </ul>
<b>Client Education</b>
Provide client with verbal and written information on use of devices installed.
<b>Training</b>
Weatherization Professionals are trained on where to install smoke and carbon monoxide alarms.

7.20 – Occupant Health and Safety Concerns and Conditions				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
<b>Funding</b>				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
What guidance do you provide Subgrantees for soliciting the occupants' health and safety concerns related to components of their homes?				
When a person's health may be at risk and/or the work activities could constitute a health or safety hazard, the occupant at risk will be required to take appropriate action based on severity of risk. Failure or the inability to take appropriate actions must result in deferral.				
What guidance do you provide Subgrantees for determining whether occupants suffer from health conditions that may be negatively affected by the act of weatherizing their home?				
IHCD has created an Occupant Health Screening Form, which gives the client the guidance and opportunity to disclose their refusal of products or weatherization measures that they or their physician may deem a potential compromise to their health and/or wellbeing.				
What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?				
IHCD has created an Occupant Health Screening Form, which gives the client the guidance and opportunity to disclose their refusal of products or weatherization measures that they or their physician may deem a potential compromise to their health and/or wellbeing.				
Client Education				



- Sub-grantees inform clients in writing of any known risks.
- When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Documentation Form(s) have been developed and comply with guidance? Yes  No

## 7.21 – Ventilation and Indoor Air Quality

### Concurrence, Alternative, or Deferral

Concurrence with Guidance  Alternative Guidance  Results in Deferral

### Funding

DOE  LIHEAP  State  Utility  Other

### Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)

Indiana has implemented ASHRAE 62.2 – 2016.

### Testing and Final Verification Protocols

Each home is evaluated to meet the ASHRAE 62.2-2016 standard at the initial audit. An ASHRAE 62.2-2016 calculator is utilized to estimate whole house ventilation needs. At the Quality Control Inspection the same calculator is utilized to verify compliance with ASHRAE 62.2-2016 Standard.

### Client Education

- Provide client with information on function, use, and maintenance (including location of service switch and cleaning instructions) of ventilation system and components.
- Provide client with equipment manuals for installed equipment.
- Include disclaimer that ASHRAE 62.2-2016 does not account for high polluting sources or guarantee indoor air quality.

### Training

- IHCD's training provider offers a training course titled ASHRAE 62.2-2016.

## 7.22 – Window and Door Replacement, Window Guards

### Concurrence, Alternative, or Deferral

Concurrence with Guidance  Alternative Guidance  Results in Deferral

### Funding

DOE  LIHEAP  State  Utility  Other

### What guidance do you provide to Subgrantees regarding window and door replacement and window guards?

Window and door repair, replacement, or installation is not an allowable health and safety cost.

### Testing Protocols

N/A

### Client Education

Provide written information on lead risks wherever issues are identified.

### Training

Weatherization Professionals are made aware of guidance during training.

## 7.23 – Worker Safety (OSHA, etc.)

### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral

### Funding

DOE       LIHEAP       State       Utility       Other

### How do you verify safe work practices? What is your policy for in-progress monitoring?

- Weatherization Professionals must follow OSHA standards where required and take precautions to ensure the H&S of themselves and other workers.
- All sub-grantees and contractors must maintain compliance with the current OSHA Hazard Communication Standard, including on-site organized Safety Data Sheets (SDS) (formerly called MSDS).

### Training and Certification Requirements

The OSHA 10-hour training is required for all Weatherization Professionals.

## 7.24 – Decommissioning

### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral

### Funding

DOE       LIHEAP       State       Utility       Other

### Remediation Protocols

#### **Decommissioning of an unvented space heater:**

In the event an unvented space heater is required to be removed from the unit the following must be completed:

Remove unvented space heater from the unit

Equipment will be disposed of in accordance with local laws and regulations, recycling materials when feasible

Gas line shall be removed and capped as close to branch tee as possible

Cap shall be tested for gas leaks after gas line is removed

#### **Decommissioning of abandoned vent systems:**

When vent systems are no longer being utilized, the following must be completed for:

**Masonry Chimney:** Vent connectors must be removed

Interior masonry chimney connector opening must be sealed with metal cap, cement/mortar, or a combination of metal cap and cement/mortar

**Type B-vent and Manufactured Vent System:** Vent sections must be removed as far away from disconnection as practical, (i.e. typically at ceiling level) and sealed with a metal cap

The decommissioned vents must be tagged as “Unsafe To Use”

**Decommissioning of gas fireplace:**

Gas line shall be removed and capped as close to branch tee as possible

Cap shall be tested for gas leaks after gas line is removed

Depending on the vent system type, refer below to applicable protocols:

**Type B-vent and Manufactured Vent System:** Vent sections must be removed as far away from disconnection as practical, (i.e. typically at ceiling level) and sealed with a metal cap

The decommissioned vent must be tagged as “Unsafe To Use”

**Decommissioning of solid fuel open hearth fireplace:**

Exterior:

Cover chimney top with a chimney cap with an animal screen/guard

Top of chimney should NOT be permanently disabled/airsealed

Safety of weatherization professionals is paramount

If a chimney cap is not a feasible option, sub-grantee must submit meaningful photograph(s) and request waiver to IWX@ihcda.in.gov

Interior:

Install foam board and drywall with a support structure to ensure durability

The decommissioned fireplace must be tagged as “Unsafe to Use”

When a solid fuel open hearth fireplace is present, the blower door must be operated at 300 cfm to simulate a fire in the fireplace. If open hearth fireplace is left operating post weatherization, it must be inspected by a qualified chimney sweep and must be deemed safe to use. A copy of this letter, must be placed in the client file.

The Worst Case CAZ Depressurization limit for a wood stove which obtains combustion air from the home is -4.0 Pascals of pressure.

The Worst Case CAZ Depressurization limit for an EPA approved direct vent wood stove is -10.0 Pascals of pressure.

If either of these limits are met or exceeded, the respective wood stove will require decommissioning. A copy of the Worst Case Testing form for all of the above mentioned ventilations systems must be in the client file.

**Client Education**

Clients must be educated about all decommissions in the home **prior** to any weatherization work commencing. IHEDA strongly encourages sub-grantee to get written client consent to decommission at the time of the audit.

**Training**

INCAA provides training to auditors, QCIs, and all other pertinent personnel on this policy.

**7.24 – <Add in Topic>**

**Concurrence, Alternative, or Deferral**  
Concurrence with Guidance       Alternative Guidance       Results in Deferral

<b>Funding</b>				
DOE <input type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
<b>Remediation Protocols</b>				
<b>Testing Protocols</b>				
<b>Client Education</b>				
<b>Training</b>				