

# 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*

<b>H&amp;S Measure Matrix - Optional</b>			
<b>Double Click To Open For Editing</b>			
Cells this shade auto calculate			
<b>Enter Measure i</b>	<b>Enter Cost i</b>	<b>Enter Frequency % i</b>	<b>Auto Calculates</b>
Heating System Replacement	\$2,500.00	10.0%	\$250.00
Heating System Repair	\$350.00	40.0%	\$140.00
Water Heater Replacement	\$750.00	20.0%	\$150.00
Water Heater Repair	\$150.00	5.0%	\$7.50
Smoke detector	\$25.00	95.0%	\$23.75
CO detector	\$55.00	95.0%	\$52.25
Minor Roof Repair	\$250.00	2.5%	\$6.25
Code Compliance	\$85.00	5.0%	\$4.25
Stove Repair	\$150.00	10.0%	\$15.00
Minor Gas Line Repair	\$100.00	20.0%	\$20.00
Minor Electrical Repair	\$150.00	15.0%	\$22.50
Minor Plumbing Repair	\$100.00	5.0%	\$5.00
ASHRAE fan installation	\$620.00	40.0%	\$248.00
Lead-Safe Work Practices	\$170.00	15.0%	\$25.50
Asbestos Testing (in siding, walls, ceiling)	\$100.00	3.0%	\$3.00
Vapor Barrier Installation	\$750.00	25.0%	\$187.50
Gas Appliance Vent Repair/Replacement	\$100.00	37.5%	\$37.50
Dehumidifier	\$225.00	5.0%	\$11.25
Sump Pump	\$125.00	5.0%	\$6.25
Hazardous Material Removal	\$100.00	2.0%	\$2.00
Exhaust Fan Installation	\$90.00	15.0%	\$13.50
Total Average H&S Cost Per Unit			\$1,231.00
<b>Enter</b> Estimated Production (Annual File: IV.2 WAP Production Schedule) <b>g</b>			686
<b>Enter</b> Estimated Program Operations Budget <b>g</b>			4,387,972
H&S Budget (Total Average H&S Cost Per Unit * Estimated Production)			\$844,466.00
Requested H&S Percentage Per Unit (H&S Budget/Program Operations)			19.2%

Please note that in the State Plan, Indiana lists the Health and Safety budget as \$877,594.

## 4.0 – INCIDENTAL REPAIR MEASURES

*If Grantees choose to identify any H&S measures as incidental repair measures (IRMs), they must be implemented as such under the Grantee's weatherization program in all cases – meaning, they can never be applied to the H&S budget category. In order to be considered IRMs, the measure must fit the following definition and be cost justified along with the associated efficiency measure;*

*Incidental Repairs means those repairs necessary for the effective performance or preservation of weatherization materials. Such repairs include, but are not limited to, framing or repairing windows and doors which could not otherwise be caulked or weather-stripped and providing protective materials, such as paint, used to seal materials installed under this program. ([10 CFR 440 "Definitions"](#))*

(1) 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. Some measures that address source control may include, but are not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, leaking roofs, etc. These measures are necessary for the effective performance or preservation of weatherization materials.

- If the home requires the installation or repair of a moisture barrier, drainage, flashing, sump pump, gutters, downspouts, extensions, flashing, dehumidifiers, or landscaping to ensure the insulation in the crawlspace or sidewalls remains fully intact, the cost of installing the barrier can be included as a necessary cost as a result of installing the insulation. If no insulation is being installed in the crawlspace and any of these items serve to prevent mold and moisture growth alone, this measure is considered a H&S cost. If a Subgrantee is using the Priority List, they are limited to 17% of the total job cost as the maximum they can spend on an IRM. IRMs cannot exceed 17% of the total job cost, but do not have to be limited to the 17% of the ECM cost. All costs above 17% must be justified using a NEAT/MHEA audit.
- If the home requires the repair of a roof leak in order to protect insulation installed in the attic or sidewalls of the home, the cost can be considered an IRM. Homes where no additional insulation is being installed in the attic or walls that require more than 17% of the total job costs for minor roof repairs must be deferred.

(2) A vapor or moisture barrier may be installed as either a H&S cost, or as an IRM to air sealing measures if the cost is justified as part of either a Site-Built Waiver Priority List, or NEAT audit. Otherwise, this is a H&S cost.

(3) The installation of an ASHRAE fan may be considered as an IRM to air sealing measures if the cost is justified. Otherwise, this is a H&S cost.

(4) Minor Electrical Repairs, Including Knob + Tube: Electrical repairs, including the repair or replacement of knob and tube wiring, may be considered incidental repairs when associated with the installation and preservation of insulation in the attic or sidewalls. Otherwise, this is a H&S cost.

(5) Lead-Safe Work Practices may be considered an incidental repair when considering the ECM of insulating the sidewalls of a home. Otherwise, this is a H&S cost.

(6) Window and door sealing, repair, or replacement is not an allowable H&S cost, and can only be considered as an IRM when considering the ECM of insulating the sidewalls of a home.

(7) Venting System Replacement: This can be considered an IRM of the ECM of replacing a heating system. Otherwise, this is a H&S cost.

(8) Ductwork Repair / Replacement: This can be considered an IRM of the ECM of replacing a heating system. Otherwise, this is a H&S cost.

(9) The installation of a chimney liner for an orphaned water heater may be considered as an IRM of the ECM of repairing or replacing a heating system. Otherwise, this is a H&S cost.

*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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
Where can this deferral/referral policy be accessed?
See Section 304 of the Indiana Policy and Procedures Manual, <i>Deferral Standards</i> : <a href="https://www.in.gov/myihcda/files/Weatherization%20Policy%20Manual%202017.pdf">https://www.in.gov/myihcda/files/Weatherization%20Policy%20Manual%202017.pdf</a> (Also <a href="http://www.in.gov/myihcda/weatherization.htm">http://www.in.gov/myihcda/weatherization.htm</a> .)

<b>6.0 – HAZARD IDENTIFICATION AND NOTIFICATION FORM(S)</b>
<i>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&amp;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.</i>
Documentation Form(s) have been developed and comply with guidance?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

<b>7.0 – HEALTH AND SAFETY CATEGORIES</b>
<i>For each of the following H&amp;S categories identified by DOE:</i>
<ul style="list-style-type: none"> <li>• Explain whether you concur with existing guidance from WPN 17-06 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.</li> <li>• 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.</li> <li>• “Allowable” items under WPN 17-06 leave room for Grantees to determine if the category, or testing, will be addressed and in what circumstances.</li> <li>• Declare whether DOE funds or alternate funding source(s) will be used to address the particular category.</li> <li>• Describe the explicit methods to remedy the specific category.</li> <li>• Describe what testing protocols (if any) will be used.</li> <li>• Define minimum thresholds that determine minor and major repairs</li> <li>• Identify minimum documentation requirements for at-risk occupants</li> <li>• 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.</li> <li>• Discuss how training and certification requirements will be provided for the specific category. Some categories, like Lead Based Paint, require training.</li> <li>• Describe how occupant health and safety concerns and conditions will be solicited and documented</li> </ul>
<i>Grantees may include additional H&amp;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.</i>

## 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 or MHEA 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 or MHEA 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.

Subgrantees 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 mobile home. Mobile homes are required to have furnaces that draw their combustion air from outside the carriage. The installation of a furnace in mobile homes that is intended for use in site built homes is not allowed.
- Heating systems can be replaced when the NEAT or MHEA audit shows the replacement to meet an SIR of 1 or greater. Subgrantees must run a NEAT/MHEA audit when DOE funding is used to pay for a furnace replacement. The NEAT/MHEA workscope must be followed once a NEAT/MHEA 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 IHCDIA 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 IHCDIA 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 heat load calculation. Other appropriate methods for determining the appropriate output for the new heating system will be considered on a case-by-case basis by IHCDIA.

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 and MHEA 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, or 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. When selecting items to leave behind, give preference to code-compliant units that do not require electricity.

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- and liquid-fueled space heaters that remains 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, except:
  - One listed wall-mounted space heater in a bathroom if permitted by the authority having jurisdiction which:
    - Has an input rating that does not exceed 6,000 Btu/hour;
    - Is equipped with an oxygen-depletion sensing safety shut-off system; and
    - The bathroom has adequate combustion air;
  - One listed wall-mounted space heater in a bedroom if permitted by the authority having jurisdiction, which:
    - Has an input rating that does not exceed 10,000 Btu/hour;
    - Is equipped with an oxygen-depletion sensing safety shut-off system; and
    - The bedroom has adequate combustion air.

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 home 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.

<b>Indicate Documentation Required for At-Risk Occupants</b>
Auditors determine and document presence of “at-risk” current occupants when installing any Health and Safety measure.
<b>Testing Protocols</b>
<p>Health and safety inspections make sure that systems are present, operable, and performing. The health and safety inspection of combustion appliances, including heating systems, includes the following items:</p> <ul style="list-style-type: none"> <li>• The rated and measured BTU input of each gas furnace</li> <li>• 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</li> <li>• An inspection of all gas lines in the home from the source to the gas appliances or line termination This includes all fittings, connections, shut-off valves, gas valves, sediment traps and end caps</li> <li>• An inspection for spillage and a reading of the draft of gas furnaces and water heaters (Completion of the Indiana Gas Appliance Inspection Form)</li> <li>• A visual check for flame interference</li> <li>• A test of the setting and operation of the high limit control switch</li> <li>• An evaluation of the adequacy of combustion air for combustion appliances</li> <li>• A check that there are no open return air ducts/leaks in the Combustion Appliance Zone</li> <li>• Carbon monoxide testing of all gas appliances</li> <li>• An inspection, and replacement if necessary, of the furnace filter</li> <li>• Worst case draft test (Completion of the Indiana Daily Safety Test-Out Form)</li> </ul>
<b>Client Education</b>
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Discuss appropriate use and maintenance of units.</li> <li>• Provide all paperwork and manuals for any installed equipment.</li> <li>• Discuss and provide information on proper disposal of bulk fuel tanks when not removed as part of the weatherization work.</li> <li>• Where combustion equipment is present, provide safety information including how to recognize depressurization.</li> </ul>
<b>Training</b>
<p>Auditors receive extensive training in the evaluation of combustion appliances, including heating systems. Home evaluation forms that document existing combustion appliance functionality and combustion gas presence are required to be in every client file. Measurement and careful consideration of the air leakage rate of the dwelling unit prior to, and during, the course of air sealing, are important steps in the weatherization process to ensure safety and appropriateness of the weatherization measures.</p>

7.2 - Asbestos - All				
<b>What is the blower door testing policy when suspected Asbestos Containing Material (ACM) is identified?</b>				
<p>Weatherization workers must recognize materials that may contain asbestos and avoid disturbing them. Following WPN 17-7, Subgrantees must not perform a blower door depressurization test in a building where friable asbestos 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.</p> <ul style="list-style-type: none"> <li>• When suspected asbestos containing materials are present, assume that asbestos is present unless testing has determined otherwise.</li> <li>• Sample collection and testing must be done by a certified asbestos control professional.</li> <li>• Baseline environmental asbestos sampling is an allowable H&amp;S cost.</li> <li>• 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.</li> </ul>				
<b>7.2a – Asbestos - in siding, walls, ceilings, etc.</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 in siding, walls, or ceilings that will be disturbed through the course of weatherization work?</b>				
<ul style="list-style-type: none"> <li>• The existence of asbestos siding that is in good condition does not prevent installing dense-pack insulation from the exterior.</li> <li>• Siding may be removed and reinstalled in order to perform the ECM, and the associated costs may be charged as part of the ECM.</li> <li>• General abatement of asbestos siding or replacement with new siding is not an allowable H&amp;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.</li> </ul>				
<b>Testing Protocols</b>				
<ul style="list-style-type: none"> <li>• Visually inspect exterior wall surface and subsurface, floors, walls, and ceilings for suspected ACM prior to drilling or cutting.</li> <li>• Asbestos Hazard Emergency Response Act of 1986 (AHERA) sample collection and testing must be conducted by a certified tester.</li> </ul>				
<b>Client Education</b>				
<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>				



- Asbestos training is provided by the Environmental Management Institute (EMI). 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.
- Contractor training courses will teach safe practices for siding removal and replacement and how to identify asbestos containing materials.
- How to identify suspected ACM.
- Licensing/certification for removal and reinstallation of asbestos siding if required by AHJ.

### 7.2b – Asbestos - in vermiculite

#### 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 vermiculite that will be disturbed through the course of weatherization work?

- When vermiculite is present, assume it contains asbestos unless testing determines otherwise.
- Do not perform a blower door test if it will disturb the vermiculite.
- Use proper respiratory protection while in areas containing vermiculite.
- Encapsulation by an appropriately trained asbestos control professional is allowed.
- Removal is not allowed.
- When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.

#### Testing Protocols

- AHERA sample collection and testing must be conducted by a certified tester.
- Baseline environmental asbestos sampling is an allowable H&S cost.

#### Client Education

- Instruct clients in writing not to disturb suspected ACM.
- Provide asbestos safety information to the client.
- Formally notify client in writing of results if testing was performed.
- When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

#### Training and Certification Requirements

- Training on how to recognize vermiculite.
- AHERA or state certification to conduct testing.
- AHERA or other appropriate asbestos control professional certification/training for encapsulation.

### 7.2c – Asbestos - on pipes, furnaces, other small covered surfaces

#### Concurrence, Alternative, or Deferral

Concurrence with Guidance  Alternative Guidance  Results in Deferral

#### Funding

DOE  LIHEAP  State  Utility  Other

<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>

<b>7.5 – Biologicals and Unsanitary Conditions</b> (odors, mustiness, bacteria, viruses, raw sewage, rotting wood, 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"/>		
Unallowable Measure <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 biological and/or unsanitary conditions in homes slated for weatherization?</b>				
<ul style="list-style-type: none"> <li>• Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed.</li> <li>• Addressing bacteria and viruses is not an allowable cost.</li> <li>• Deferral may be necessary in cases where conditions in the home pose a health risk to occupants and/or weatherization workers.</li> </ul>				
<b>Testing Protocols</b>				
Auditors will conduct a sensory inspection for biological and unsanitary conditions.				
<b>Client Education</b>				

Auditors will inform the client of observed conditions. Auditors will provide information on how to maintain a sanitary home and steps to correct deferral conditions.

#### 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.
- Homes that have been deferred for structural issues considered beyond the scope of weatherization may be eligible for State LIHEAP, Healthy Homes, or OOR funds to address these issues on a case-by-case basis.

### 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 or IRMs that they really want to do, but the cost exceeds 17% of the total job costs, they will have to do a NEAT/MHEA run to justify the additional cost.

### Client Education

- Notify client 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.

### Training

Auditors are trained how to identify structural and roofing issues during Energy Auditor training.

## 7.7 – Code Compliance

### 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 code compliance issues in homes receiving weatherization measures?

<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, cite specific code requirements 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 and properties where “red tagged” 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 is a list of situations that 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>• Following fire safety is particularly important to installing foam insulation. The SWS indicates that Foam insulation requires a thermal barrier covering of at least half-inch drywall when installed in a living space. Foam may require an ignition barrier when installed in attics or crawl spaces or it may not.</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 (DOE, LIHEAP, State LIHEAP, utility 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, QCIs, 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 make sure that systems are present, operable, and performing. The health and safety inspection of combustion appliances, including heating systems, includes the following items:</p> <ul style="list-style-type: none"> <li>• The rated and measured BTU input of each gas furnace</li> <li>• 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</li> <li>• An inspection of all gas lines in the home from the source to the gas appliances or line termination. This includes all fittings, connections, shut-off valves, gas valves, sediment traps and end caps</li> <li>• A complete visual inspection of all heating system venting in the home is performed, including water heaters, fireplaces, space heaters, ovens, or other vented combustion appliances to ensure: <ul style="list-style-type: none"> <li>- The proper configuration per manufacturer specifications</li> <li>- The appropriate materials were used</li> <li>- The system is free of blockages</li> </ul> </li> <li>• An inspection for spillage and a reading of the draft of gas furnaces and water heaters (completion of the Indiana Gas Appliance Inspection Form)</li> <li>• A visual check for flame interference</li> <li>• A test of the setting and operation of the high limit control switch</li> <li>• An evaluation of the adequacy of combustion air for combustion appliances</li> <li>• Ensure there are no open return air ducts/leaks in the Combustion Appliance Zone</li> <li>• Carbon monoxide testing of all gas appliances</li> <li>• An inspection, and replacement if necessary, of the furnace filter</li> <li>• Worst case draft test</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>The DOE SWS require CO monitoring during combustion testing to ensure that CO in the combustion appliance zone (CAZ) doesn't exceed 70 ppm as measured (per BPI 1200 standards).</p> <ul style="list-style-type: none"> <li>• If ambient CO level in the CAZ exceeds 70 ppm, stop testing for your own safety.</li> <li>• Ventilate the CAZ thoroughly before resuming combustion testing.</li> <li>• Investigate indoor CO levels (which are greater than outdoor ambient levels) to determine their cause.</li> <li>• Additional specific protocols for addressing hazards that require an immediate response are also outlined in Indiana's SWS-aligned Field Guide.</li> </ul> <p>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.</p>
<p><b>Client Education</b></p>
<p>Auditors will provide clients 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>
<p><b>Training</b></p>
<p>Auditors receive extensive training in the evaluation of combustion appliances. Home evaluation forms that document existing combustion appliance functionality and combustion gas presence are required to be in every client file. Measurement and careful consideration of the air leakage rate of the dwelling unit prior to, and during, the course of air sealing, are important steps in the weatherization process to ensure safety and appropriateness of the weatherization measures.</p>
<p><b>7.9 – Electrical</b></p>
<p><b>Concurrence, Alternative, or Deferral</b></p>
<p>Concurrence with Guidance <input checked="" type="checkbox"/>      Alternative Guidance <input type="checkbox"/>      Results in Deferral <input type="checkbox"/></p>

<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 electrical hazards, including knob &amp; tube wiring, in homes slated for weatherization?</b>				
<p>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. If it is spliced into conventional circuitry, auditors note the breakers or fuses controlling the circuit.</p> <p>Live knob and tube wiring can never be covered or surrounded by insulation as a result of any weatherization measure. Boxing of knob and tube wiring prior to insulation is acceptable.</p> <p>Auditors will inspect 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.</p>				
<b>How do you define “minor” or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?</b>				
<ul style="list-style-type: none"> <li>• 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.</li> <li>• The replacement of Installing a new electrical panel, new incoming service or completely rewiring a home are not considered minor electrical repairs.</li> <li>• Knob and Tube wiring may be replaced as an Incidental Repair as part of a Waiver Audit Priority List audit, NEAT audit, or by using non-DOE funds.</li> </ul>				
<b>If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?</b>				
<p>If a Subgrantee is using the Priority List and they have an IRM or IRMs that they really want to do, but the cost exceeds 17% of the total job costs, they will have to do a NEAT/MHEA run to justify the additional cost.</p>				
<b>Client Education</b>				
<p>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.</p>				
<b>Training</b>				
<ul style="list-style-type: none"> <li>• Auditors are trained how to identify electrical hazards, and on the proper way of to perform voltage drop test to determine the level of safety and integrity of knob and tube wiring.</li> <li>• Auditors are instructed to avoid insulating over or dense packing around live knob and tube wiring while installing insulation in attics, floors, or walls.</li> <li>• Auditors are instructed to always follow local (or AHJ) code whenever necessary.</li> </ul>				

<b>7.10 – Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants</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 formaldehyde, VOCs, flammable liquids, and other air pollutants identified in homes slated for weatherization?</b>
<ul style="list-style-type: none"> <li>Removal of pollutants is allowed and is required if they pose a risk to workers.</li> <li>If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred.</li> </ul>
<b>Testing Protocols</b>
Auditors will conduct a sensory inspection for formaldehyde, VOCs, and other air pollutants.
<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>
Auditors are trained 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 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, other than during the initial inspection.				
<b>Client Education</b>				
Clients are notified immediately of any fuel leaks detected within the home whenever possible, as well as in writing.				
<b>Training</b>				
All auditors, QICs, and contractors are all trained to identify fuel leaks.				

<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"/>		

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 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>				
Testing Protocols				
<ol style="list-style-type: none"> <li>Test for gas leaks in the gas piping in and around the range and oven and seal leaks.</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, install a CO alarm in the same room as the appliance and perform client education on use of the range. Consider a kitchen rated CO alarm.</li> <li>For ovens, if after servicing, the CO level still exceeds 225 ppm, 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.</li> <li>Burner orifices can clog; Clean dirty orifices with a multi-tool designed for cleaning various sizes of orifices.</li> <li>Adjust the burner's air shutters to stabilize and harden the flame and reduce yellow-tipping, which should also reduce the CO concentration.</li> </ol>				
Client Education				
<ul style="list-style-type: none"> <li>Never use a range burner or gas oven as a space heater.</li> <li>Open a window, and turn on the kitchen exhaust fan when using the range or oven.</li> <li>Never install aluminum foil around a range burner or oven burner because the foil could interfere with the flame.</li> <li>Keep range burners and ovens clean to prevent dirt from interfering with combustion.</li> <li>Burners should display hard blue flames. Call a service company if you notice yellow, white, wavering, or noisy flames.</li> </ul>				
Training				
Auditors receive extensive training in the evaluation of combustion appliances, including gas ovens, stoves, and ranges. Indiana's Gas Stove Form documents existing combustion appliance functionality and combustion gas presence, and are required to be in every client file.				

7.13 – Hazardous Materials Disposal [Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.] <i>(please indicate material where policy differs by material)</i>				
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 checked="" type="checkbox"/>	Other <input type="checkbox"/>
Client Education				
Client are informed on-site when necessary, and in writing, of hazards associated with hazardous waste materials being generated/handled in the home.				



<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>
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Document proper disposal requirements in contract language with responsible party.</li> </ul>

<b>7.14 – Injury Prevention of Occupants and Weatherization Workers (Measures such as repairing stairs and replacing handrails)</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 regarding allowable injury-related repairs (e.g., stairs, handrails, porch deck board)?</b>				
Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks.				
<b>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.</b>				
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.				
<b>Training</b>				
Auditors are trained to be aware of potential hazards.				

<b>7.15 – Lead Based Paint</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>Safe Work Protocols</b>				

<ul style="list-style-type: none"> <li>• All homes built prior to 1978, where paint will be disturbed and the paint is either verified or assumed to be lead based paint, the following lead safe work practices, at a minimum, shall be used:             <ul style="list-style-type: none"> <li>- Lay 6 mil plastic 10’ beyond the area where lead based paint is disturbed (exterior)</li> <li>- Lay 6 mil plastic 6’ beyond the area where lead based paint is disturbed (interior)</li> <li>- Wet the area of paint being disturbed</li> <li>- Wet all paint chips prior to clean-up and removal</li> <li>- Limit access to the area where paint is being disturbed</li> <li>- Ensure that all appropriate personal protective equipment is used</li> <li>- Ensure proper disposal of trash and material</li> <li>- Provide pictures for the client file showing use of lead safe work practices</li> <li>- Use the XRF to limit the need for lead safe work practices</li> </ul> </li> <li>• Firms must be certified</li> <li>• Renovators must be certified</li> <li>• Lead-safe work practices must be followed</li> </ul>
<b>Testing Protocols</b>
<ul style="list-style-type: none"> <li>• Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods.</li> <li>• Testing methods must be economically feasible and justified.</li> <li>• Job site set up and cleaning verification by a Certified Renovator is required.</li> <li>• IHCD will verify that crews are using lead safe work practices during monitoring.</li> <li>• Wear a tight-fitting respirator to protect yourself from breathing dust or other pollutants.</li> <li>• Confine your work within the dwelling to the smallest possible floor area. Seal this area off carefully with floor-to-ceiling barriers made of disposable plastic sheeting, sealed at floor and ceiling with tape.</li> <li>• Don’t use heat guns or power sanders in LSW work.</li> <li>• Spray water on the painted surfaces to keep dust out of the air during drilling, cutting, or scraping painted surfaces.</li> <li>• Provide a copy of all Certified Lead Firm documentation required by contractor to Subgrantee and the client.</li> </ul>
<b>Client Education</b>
<ul style="list-style-type: none"> <li>• Firms performing renovations must ensure that pre-renovation education requirements of the Lead-Based Paint Renovation, Repair, and Painting Program are performed.</li> <li>• Provide clients with the pamphlet "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools", and certify that they received the form.</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>
<p>Indiana underwent a number of steps in order to adhere to EPA standards as outlined in the Renovation, Repair, and Painting Rule (RRP). Indiana is compliant with this rule and the steps taken to be compliant are outlined below:</p> <ul style="list-style-type: none"> <li>• All 21 Subgrantees have at least one XRF analyzer. Re-calibration of the XRF is not an allowable cost with DOE funds. All re-calibration expenses must be paid for with LIHEAP dollars. See Indiana’s Policies and Procedures manual for further details.</li> <li>• All Subgrantees or subcontractors will be required to maintain Lead Certified Firm status through the EPA. All Subgrantees will have at least one staff member or subcontractor who is a certified Lead Renovator.</li> <li>• The Environmental Management Institute (EMI) is the training provider for lead renovator training.</li> <li>• Monitoring has included an LSW component which reviews practices, inventory, and reporting. Grantee monitors and Inspectors must be Certified Renovators.</li> </ul>

<b>Documentation Requirements</b>
<ul style="list-style-type: none"> <li>• Provide a copy of all Certified Lead Firm documentation required by contractor to Subgrantee and the client.</li> <li>• Provide clients with the pamphlet "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools", and certify that they received the form.</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"/>
<p><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></p> <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>				
<p><b>How do you define “minor” or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?</b></p> <p>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.</p>				
<b>Client Education</b>				
Solutions for mold remediation and educational talking points are discussed with the homeowner and/or occupants to determine roles in creation of problems and/or mitigation. Occupants are given a copy of the Environmental Protection Agency (EPA) brochure, "A Brief Guide to Mold, Moisture, and Your Home" as part of the client education process.				
<b>Training</b>				
Each Subgrantee’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.				

<b>7.17 – Pests</b>				
<b>Concurrence, Alternative, or Deferral</b>				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input checked="" 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 pests and pest intrusion prevention in homes slated for weatherization?</b>				
<ul style="list-style-type: none"> <li>• Pest removal is cause for deferral unless other funds are available to cover the cost of extermination.</li> <li>• Pest removal is allowed only where infestation would prevent weatherization.</li> <li>• Screening of windows and points of access, and incorporating pest exclusion into air sealing practices to prevent intrusion is allowed.</li> </ul>				
<b>Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred</b>				
Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses H&S concern for workers.				
<b>Testing Protocols</b>				
Auditors conduct a visual assessment of presence and degree of infestation and risk to worker is conducted.				
<b>Client Education</b>				
Auditors will inform clients of the observed condition and associated risks.				
<b>Training</b>				
Auditors are trained in how to assess the presence and degree of infestation, associated risks, and need for deferral.				

<b>7.18 – Radon</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 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>• In homes where radon may be present, work scope should 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 IHCD. Subgrantees may allow testing at their discretion in areas with high radon potential using non-federal funds.

#### Client Education

- Provide all clients EPA's A Citizen's Guide to Radon and inform them of radon related risks.
- Informed consent form must include:
  - Information from the results of the IAQ Study that there is a small risk of increasing radon levels when building tightness is improved;
  - 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; and
  - Confirmation that EPA's A Citizen's Guide to Radon was received and radon related risks discussed with the client.

#### Training and Certification Requirements

- 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.
- Workers must be trained in proper vapor retarder installation.
- A zonal map can be located at <http://www.epa.gov/radon/pdfs/zonemapcolor.pdf>

#### Documentation Requirements

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

### Concurrence, Alternative, or Deferral

Concurrence with Guidance       Alternative Guidance       Results in Deferral

### Funding

DOE       LIHEAP       State       Utility       Other

### What is your policy for installation or replacement of the following:

Smoke Alarms:

- Install smoke alarms labeled UL 217 in buildings where they don't exist, or don't work.
- Install one smoke alarm in each dwelling on each floor in all dwellings that don't have existing functional alarms.
- If battery powered, long-life lithium batteries are preferred if available.
- Due to the increased use of synthetic materials in building construction, the Indiana State fire marshal recommends the use of dual sensor smoke alarms that incorporate the use of both ionization and photoelectric sensors.
- Don't install smoke alarms within 12 inches of exterior doors and windows, or with an electrical connection to a switched circuit.

<p><b>Carbon Monoxide Alarms:</b></p> <ul style="list-style-type: none"> <li>• All weatherized dwellings or weatherized apartments must contain at least one CO alarm.</li> <li>• Check all existing alarms in the home to ensure they are functional, and replace with new batteries.</li> <li>• Install CO alarms or combination CO/smoke alarms in all dwellings that don't have functional alarms.</li> <li>• Installed CO alarms:             <ul style="list-style-type: none"> <li>- Must have a label with a UL 2034 listing</li> <li>- If hard wired, connect to a circuit that is energized at all times by plugging in to an electrical receptacle.</li> <li>- If battery powered, prefer long-life lithium batteries.</li> </ul> </li> </ul>
<p><b>Fire Extinguishers:</b> Where solid fuel burning equipment is present, fire extinguishers may be provided as an allowable H&amp;S measure.</p>
<b>Testing Protocols</b>
<ul style="list-style-type: none"> <li>• Check existing alarms for operation, and check the expiration date of existing extinguishers.</li> <li>• Verify operation of installed alarms and extinguishers.</li> </ul>
<b>Client Education</b>
Provide client with verbal and written information on use of devices installed.
<b>Training</b>
Auditors, crews, and contractors are trained on where to install smoke and carbon monoxide alarms.

<b>7.20 – Occupant Health and Safety Concerns and Conditions</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 soliciting the occupants' health and safety concerns related to components of their homes?</b>				
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.				
<b>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?</b>				
Intake staff will screen occupants to reveal known or suspected health concerns as part of initial application for weatherization. Knowledge about suspected health concerns should be shared with weatherization staff and contractors, and continue throughout the weatherization process. Auditors will additionally screen the occupants to reveal known or suspected health concerns as part of the initial audit whenever possible.				
<b>What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?</b>				
Subgrantees are trained how to assess occupant preexisting conditions, and determine what action to take if the home is not deferred. Subgrantees are trained to maintain an awareness of potential hazards.				
<b>Client Education</b>				
Auditors provide clients information regarding any known risks.				
Documentation Form(s) have been developed and comply with guidance?			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

<b>7.21 – Ventilation and Indoor Air Quality</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>Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)</b>				
Indiana has implemented ASHRAE 62.2 – 2016 into all guidance, training, and forms.				
<b>Testing and Final Verification Protocols</b>				
Each home is evaluated to meet the ASHRAE 62.2 standard at the initial audit. Fans installed as a result of ASHRAE 62.2 are tested for proper flow and adjusted to meet blower door readings at the time work is completed.				
<b>Client Education</b>				
<ul style="list-style-type: none"> <li>• Provide client with information on function, use, and maintenance (including location of service switch and cleaning instructions) of ventilation system and components.</li> <li>• Provide client with equipment manuals for installed equipment.</li> <li>• Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.</li> </ul>				
<b>Training</b>				
<ul style="list-style-type: none"> <li>• Auditors are required to complete ASHRAE 62.2 training which includes evaluation of the home, proper sizing, evaluation of existing and new systems, blower door testing, moisture assessments, and completion of Indiana’s ASHRAE 62.2 - 2016 calculation form.</li> <li>• Indiana will continue using this version of the standard until DOE releases updated guidance indicating the inclusion of a new ASHRAE standard.</li> </ul>				

<b>7.22 – Window and Door Replacement, Window Guards</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 to Subgrantees regarding window and door replacement and window guards?</b>				
Window and door sealing, repair, or replacement is not an allowable H&S cost, and can only be considered as an IRM when considering the ECM of insulating the sidewalls of a home.				
<b>Testing Protocols</b>				
Visual assessment as necessary.				
<b>Client Education</b>				
Provide written information on lead risks wherever issues are identified.				
<b>Training</b>				
Workers are made aware of guidance during training.				

<b>7.23 – Worker Safety (OSHA, etc.)</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>How do you verify safe work practices? What is your policy for in-progress monitoring?</b>				
<ul style="list-style-type: none"> <li>• All Subgrantees and contractors must maintain compliance with the current OSHA Hazard Communication Standard, including on-site organized Safety Data Sheets (SDS) (formerly called MSDS).</li> <li>• When possible, IHCD’s monitoring staff will incorporate in-progress visits to client homes as part of the Technical Monitoring visit to ensure safety standards are being met. It is the responsibility of the subgrantee to know the locations where their contractors or crews are working to facilitate the in-progress visit under these circumstances.</li> <li>• Subgrantees must perform assessments to determine if crews are practicing and utilizing safe work practices.</li> </ul>				
<b>Training and Certification Requirements</b>				
The OSHA 10 hour training is required for all weatherization workers. All new weatherization workers must receive the appropriate OSHA training within 9 months commencing 45 days from the date of hire.				