Allowable energy related health and safety actions are those actions necessary to maintain the physical wellbeing of both the occupants and/or weatherization workers where:

•Costs are reasonable as determined by DOE in accordance with this approved Master Plan;

- •The actions must be taken to effectively perform weatherization; or
- •The actions are necessary because of weatherization work.

The average DOE cost for abating health and safety hazards shall not exceed 15% of the final average of DOE and LIHEAP funded costs per unit. No single unit shall exceed \$3,000 of health and safety cost, without written approval from KHC. Health and safety activities that are not direct components of an efficiency measure shall be charged as a health and safety cost. Kentucky Weatherization (KY WX) addresses general Health and Safety (H&S) extensively in its Weatherization Program Manual (WXPM). The grantee, Kentucky Housing Corporation (KHC), oversees the content and updating of the WXPM as needed. The WXPM and the Kentucky Weatherization Field Guide (Version 04.02.2018) function as the primary guidance for compliance for KHC sub-grantee(s) and their subcontractors. In this manner, a reliable source of H&S regulations is always available to the program operators, and a consistent system is in place that is readily understood by all participants. The Health and Safety (H&S) chapter outlines all current and in-progress health and safety procedures covering the specific health and safety issues, action/allowability, testing, client education and training requirements.

# Kentucky Weatherization Health and Safety Plan

# ☑ 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. The H&S category					
Select which option is used below.					
Separate Health and Safety Budget 🗹	Contained in Program Operations 🛛				

# **3.0 – HEALTH AND SAFETY EXPENDITURE LIMITS**

Pursuant to <u>10 CFR 440.16(h)</u>, 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 <u>should</u> 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

Double Click To Open For Editing						
Се	lls this shade auto calc	ulate				
<u>Enter</u> Measure ↓	Auto Calculates					
Air-Conditioning & Heating Systems/Units	\$1,537.74	17.0%	\$261.42			
Building Structure and Roofing	\$479.41	11.0%	\$52.74			
Code Compliance	\$144.25	16.0%	\$23.08			
Combustion Gases	\$149.00	26.5%	\$39.49			
Electrical	\$124.00	24.1%	\$29.88			
Fuel Leaks	\$124.43	25.0%	\$31.11			
Gas Ovens/Stovetops/Ranges	\$94.51	5.1%	\$4.82			
Hazardous Materials	\$135.40	6.1%	\$8.26			
Injury Prevention/Occupants&Workers	\$483.52	9.2%	\$44.48			
Lead Based Paint	\$127.32	11.2%	\$14.26			
Mold and Moisture	\$455.73	16.1%	\$73.37			
Safety Devices: Smoke & CO Alarms, Fire Ex	\$139.20	49.6%	\$69.04			
Ventilation and Indoor Air Quality	\$665.01	44.6%	\$296.59			
Evaluation and Test Out Labor	\$217.87	100.0%	\$217.87			
Total Average H&S Cost Per Unit			\$1,166.41			
Enter Estimated Production (Annual File: IV.2	1302					
Enter Estimated Program Operations Budget		:)	10,131,594			
H&S Budget (Total Average H&S Cost Per Uni Requested H&S Percentage Per Unit (H&S Bu		,	\$1,518,660.20 15.0%			

It is our plan this year to encourage leveraging and braiding of funds into H&S. The percentages entered do not reflect the actual frequency, they are lowered to demonstrate how we plan to keep the overall DOE funded average under 15%.

The average DOE cost for abating health and safety hazards shall not exceed 15% of the final average of DOE costs per unit. No single unit shall exceed \$3,000 of health and safety cost, without written approval from KHC. Health and safety activities that are not direct components of an efficiency measure shall be charged as a health and safety cost. Subgrantees will submit the "request to exceed" form to KHC for approval of the costs prior to the work being performed.

# 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. (<u>10 CFR 440 "Definitions"</u>)

Minor repairs are repairs costing less than \$500. Building rehabilitation is beyond the scope of the WAP. H&S funds should not be used when the repair is a component of an ECM. In that case, the repair should be cost-justified as an incidental repair. Repairing a small roof leak will be charged to Health and Safety when no attic insulation is installed but will be charged to Incidental Repair Measures when attic insulation is installed. H&S funds should not be used when the repair is a component of an ECM, such as fixing a light fixture to install a CFL/LED bulb. In this case the cost should be cost-justified as an incidental repair.

Correction of combustion gases venting issues should be completed as an incidental repair when it is a component of an ECM.

The removal and replacement of knob and tube requires electrical license and is allowed as an incidental repair to an ECM such as installing insulation.

# **5.0 – DEFERRAL/REFERRAL POLICY**

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?

In the Kentucky Master plan and the Kentucky Weatherization Program Manual <a href="https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-Assistance/Pages/WAP-Resources.aspx">https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-Assistance/Pages/WAP-Resources.aspx</a>.

Due to the recent pandemic, KHC updated the deferral polices to include self-deferrals due to fear of or pandemic infections. Those clients will be places on waiting list and will receive priority when the pandemic is over or the household is comfortable engaging in weatherization services.

# 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? The "Sample Deferral Letter" and the "H&S Screening" forms apply here. They can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, <u>http://www.kyhousing.org/Development/Single-Family/Pages/Weatherization-Assistance-Program-Resources.aspx</u>

#### 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 17-06 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.
- 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 17-06 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, Alter	native, or Deferra	1		
Concurrence	with Guidance 🗹	Alternative Gu	iidance 🛛	Results in Deferral 🛛		
	Air Conditioning Un	allowable Measure	Heating Unall	owable Measure 🛛		
		Fund	ding			
DOE 🗹	LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹		
How do you address unsafe or non-functioning primary heating/cooling systems?						

A qualified inspector/energy auditor shall determine the primary heating system of a dwelling. The primary heating system shall be inspected for safety prior to weatherizing the dwelling. If a life-threatening situation is identified, steps shall be taken immediately to rectify the problem. A contractor or qualified in-house service person shall be made aware to give it priority status. The following situations shall be considered life threatening:

- Significant fuel leaks.
- Carbon monoxide levels that exceed limits herein described. (see Section 12.5 of this Chapter)
- Electrical malfunctions posing immediate danger to occupants or technicians.

When a space conditioning system does not qualify as an ECM, the following conditions must be met before the unit can be replaced or repaired with Health and Safety funds. *When considering replacement, priority must be placed on installing a more energy efficient unit such as a heat pump when replacing an electric heating system, or a 90+ efficiency unit when replacing a standard efficiency gas heating system.*  $\Box$  "Red tagged," inoperable, or nonexistent primary heating system may be replaced, repaired, or installed where climate conditions warrant, consistent with this guidance.

 $\Box$  Primary air conditioning system replacement, repair, or installation is allowed only in homes where current occupants meet Grantee's definition of "at-risk" AND climate conditions warrant *OR as a result of an energy efficient system replacement of an inoperable or nonexistent primary heating system*. "System" can mean a central unit or several individually operating units; however, when a central unit is in place, it shall be considered the primary unit, and all other units are to be considered secondary.

 $\Box$  Use proper sizing protocols (Manual J, State Approved sizing protocols, NEAT/MHEA outputs, etc.) based on post-weatherization housing characteristics, including installed mechanical ventilation, when installing or replacing a heating or cooling appliance.

 $\Box$  Unsafe primary units must be repaired, replaced and removed, or rendered inoperable, or deferral is required.

□ Replacement or installation of secondary units is not allowed.

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

□ See Hazardous Materials Disposal section for more information.

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

Unsafe primary units must be repaired, replaced and removed, or rendered inoperable, or deferral is required. Maintenance and repair of secondary heating units is allowed. Replacement of secondary heating units is not allowed. This system must be operational and inspected using all WXPM test protocols before any other weatherization begins. Unvented combustion space heaters are not considered a primary heat source. Removal is required, except as secondary heat source and where the unit conforms to ANSI Z21.11.2. Units that do not meet ANSI Z21.11.2 must be removed prior to weatherization but may remain until a replacement heating system is in place. Testing for air-free carbon monoxide (CO) is to be performed per the WXPM. All units must have an ANSI Z21.11.1 label.

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

The weatherizing agency must determine presence of at-risk occupants before proceeding with evaluation services. *The Health & Safety Client and Home Screening Questionnaire (H&S Screening) form* must be reviewed and signed by the client at the time of application intake and by evaluator before the evaluation is started. It can be found *on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link,* 

<u>http://www.kyhousing.org/Development/Single-Family/Pages/Weatherization-Assistance-Program-</u> <u>Resources.aspx</u>

#### **Testing Protocols**

Make sure primary systems are present, operable, and performing correctly.

Check DOE-approved audit to determine if the system can be installed as an energy conservation measure (ECM) prior to replacement as an H&S measure. When replacing HVAC systems, priority must be placed on installing a more energy efficient unit such as a heat pump when replacing an electric heating system, or a 90+ efficiency unit when replacing a standard efficiency gas heating system.

Determine and document presence of "at-risk" occupants when installing air-conditioning as a Health and Safety (H&S) measure *OR* as a result of an energy efficient system replacement of an inoperable or nonexistent primary heating system.

On combustion equipment, inspect chimney and flue and test for Combustion Appliance Zone (CAZ) depressurization.

For solid fuel appliances look for visual evidence of soot on the walls, mantel or ceiling or creosote staining near the flue pipe.

Combustion safety and efficiency testing: Worst-case depressurization tests identify problems that weaken draft and restrict combustion air. Combustion analyzers sample combustion by-products to evaluate safety and efficiency. Evaluating Heat Pumps/electric furnace: Look for a temperature rise of around half the outdoor temperature in degrees Fahrenheit. Check for operation of strip heat by measuring amperage.

#### **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.

The inspector conducts a client education segment as part of the initial inspection to assure that the occupants are fully aware of measures. This procedure is documented by using a signed receipt from the head of household which confirms that the information was not only distributed, but also explained. The

"Checklist" form must be used to verify receipt and explanation of client education material. Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, <u>https://www.kyhousing.org/Partners/Developers/Single-</u> <u>Family/Weatherization-Assistance/Pages/WAP-Resources.aspx</u>. This receipt is kept in the client file. A

printable version of Preventing Carbon Monoxide Poisoning can be found here,

<u>https://www.epa.gov/sites/production/files/2015-08/documents/pcmp\_english\_100-f-09-001.pdf</u> A printable version of, "What You Should Know About Space Heaters" can be found here, <u>http://www.hipspro.com/pubs/SpaceHeatSafety.pdf</u>

A printable version of "Combustion Equipment Safety" can be found here, <u>https://www1.eere.energy.gov/buildings/publications/pdfs/building\_america/26464.pdf</u>

#### Training

Any service provider weatherization staff assigned dwelling needs evaluation or inspection activities as any portion of their job duties must participate in and successfully pass each training requirement listed as well as any other training deemed necessary by KHC.

Dwelling Needs Evaluator (DNE) class NEAT/MHEA, EA-Quip Software Leakage, Envelope and Ducts (LED) class Combustion Appliance Zone Safety (CAZ) class Zonal Pressure Diagnostics (Zonals) class ASHRAE 62.2-2016 class Intro to WX online course (Mold & Moisture, Asbestos Awareness, KY WX Field Guide) Lead Renovator Certification (RRP) First Aid Certification CPR Certification *DNE* Field Shadowing

## 7.2 - Asbestos - All

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

When Asbestos Containing Material is suspected a blower door test is not allowed. Encapsulation by an appropriately trained professional is allowed. However asbestos encapsulation and testing cost are not reimbursable by the KY WAP. Removal is not allowed.

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

#### Concurrence, Alternative, or Deferral

Concurrence with Guidance $\Box$	Alternative Guidance 🗹	Results in Deferral 🗹

DOE 🗆

LIHEAP

Funding

Other 🛛

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

Utility 🛛

Asbestos anywhere on the interior of the dwelling that would need to be addressed either directly or incidentally during the weatherization process is not an allowable H&S cost. Additionally, asbestos testing or abatement is not an allowable H&S cost. The approach is not to disturb, cut or drill said material and deter those measures that might do so. In instances where measures can be installed without disturbing asbestos surfaces or materials, that is the best approach. In instances where a local authority such as Code Enforcement imposes specific guidelines or requirements, service provider program staffs are to make themselves aware of those restrictions and comply with them. If it is determined that weatherization work cannot be performed without creating a hazard the project is to be deferred. The client is to be informed in writing of the potential hazard and the agency must not return to weatherize until an AHERA certified professional issues a clearance statement. A copy of this statement/report must be kept in the client file.

#### **Testing Protocols**

Visually inspect exterior wall surface and subsurface, floors, walls, and ceilings for suspected ACM. Asbestos encapsulation and testing cost are not reimbursable by the KY WAP.

#### **Client Education**

Clients must be informed that suspected asbestos is present and how precautions will be taken. Clients will be instructed not to disturb suspected asbestos containing material. Clients must be provided information and explanation on asbestos safety information and steps to correct deferral conditions (where applicable). The clients are required to a sign a form, provided by the weatherizing agency, indicating they have been informed (where applicable). Additionally, asbestos testing or abatement is not an allowable H&S cost. Using the "Asbestos In The Home" pamphlet or printing the information found on this link <a href="https://www.cpsc.gov/safety-education/safety-guides/home/asbestos-home">https://www.cpsc.gov/safety-education/safety-guides/home/asbestos-home</a> will be considered as compliant asbestos information. The "Checklist" form must be used to verify receipt and explanation of client education material. Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, <a href="http://www.kyhousing.org/Development/Single-Family/Pages/Weatherization-Assistance-Program-Resources.aspx">http://www.kyhousing.org/Development/Single-Family/Pages/Weatherization-Assistance-Program-Resources</a> Resources. aspx This receipt is kept in the client file.

Training and Certification Requirements

It is mandatory that all dwelling needs evaluators, crew leaders and weatherization workers attend a course that is specifically targeted to educating these professionals on how to identify asbestos containing materials and work around them without creating a hazard. This course is presented via webinar, or web posting, by KHC Training Staff to educate the weatherization staff on how to identify asbestos containing materials.

			• _1••		
		'.2b – Asbestos - i			
		Concurrence, Alternat			
Concurrence	with Guidance	Alternative Guida	nce 🗹	Results in Deferral 🗹	
		Funding	3		
DOE 🗆	LIHEAP 🗖	State 🗖	Utility 🛛	Other 🗹	
How do	you address suspecte			sturbed through the course of	
		weatherization			
	•		party testing (n	ot paid for by the KY WAP)	
determines o	therwise, the unit is to				
		Testing Prot			
Asbestos enca	apsulation and testing	cost are not reimbursa		VAP.	
		Client Educa			
				cautions will be taken. Clients will	
				ts must be provided information	
				rral conditions (where applicable).	
				ency, indicating they have been	
informed (wh	ere applicable). Using	the "Asbestos In The	e Home" pamp	ohlet or printing the information	
found on thi	s link <u>https://www.c</u>	psc.gov/safety-educa	ation/safety-g	uides/home/asbestos-home will	
be considered as compliant asbestos information. The "Checklist" form must be used to verify receipt					
and explanation of client education material. Forms can be found on the Weatherization Assistance					
Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this					
link, <u>https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-</u>					
		s.aspx. This receipt is			
<u>/////////////////////////////////////</u>	ages/ White hesolatee	<u></u>			

#### **Training and Certification Requirements**

No handling and or altering of asbestos materials is allowed. It is mandatory that all dwelling needs evaluators, crew leaders and weatherization workers attend a course that is specifically targeted to educating these professionals on how to identify asbestos containing materials and work around them without creating a hazard. This course is presented via webinar, or web posting, by KHC Training Staff to educate the weatherization staff on how to identify asbestos containing materials and work around them without creating a hazard.

#### 7.2c – Asbestos - on pipes, furnaces, other small covered surfaces **Concurrence, Alternative, or Deferral** Concurrence with Guidance $\Box$ Alternative Guidance Results in Deferral ☑ Funding LIHEAP State 🛛 DOE 🗆 Utility 🛛 Other ☑ How do you address suspected ACM's (e.g., pipes, furnaces, other small surfaces) that will be disturbed through the course of weatherization work? Regarding pipes, furnaces and other small covered surfaces, assume asbestos is present in the covering materials. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. Asbestos encapsulation and testing are not reimbursable costs within the Kentucky WAP. **Testing Protocols** Asbestos testing or abatement is not an allowable KY WAP H&S cost. Policies have been in effect for asbestos presence and related work practices for many years. The approach is not to disturb, cut or drill said material and deter those measures that might do so. **Client Education** Clients must be informed that suspected asbestos is present and how precautions will be taken. Clients will be instructed not to disturb suspected asbestos containing material. Clients must be provided information and explanation on asbestos safety information and steps to correct deferral conditions when applicable. The clients are required to sign a form, provided by the weatherizing agency, indicating they have been informed when applicable. Using the "Asbestos In The Home" pamphlet or printing the information found on this link https://www.cpsc.gov/safety-education/safety-guides/home/asbestos-home will be considered as compliant asbestos information. The "Checklist" form must be used to verify receipt and explanation of client education material. Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-Assistance/Pages/WAP-Resources.aspx. This receipt is kept in the client file. **Training and Certification Requirements**

No handling and or altering of asbestos materials is allowed. It is mandatory that all dwelling needs evaluators, crew leaders and weatherization workers attend a course that is specifically targeted to educating these professionals on how to identify asbestos containing materials and work around them without creating a hazard. This course is presented via webinar, or web posting, by KHC Training Staff.

7.5 -	Biologicals and U	nsanitary Con	ditions		
		-	rotting wood, etc.)		
	Concurrence, Altern				
Concurrence with Guidance	Alternative Gui		Results in Deferral 🗹		
	Unallowable N	∕leasure □			
	Fundi	ing			
DOE 🗆 LIHEAP 🗆	State 🗖	Utility 🗖	Other 🗹		
What guidance do you provide	Subgrantees for deali	ng with biologica	I and/or unsanitary conditions in		
What guidance do you provide	homes slated for v				
Addressing bacteria and viruses is	not allowed. Cleaning	or repairing biolo	gical and unsanitary conditions to		
perform weatherization is not all	owed. Deferral may be	necessary in cases	s where a known agent is present in		
the home that may create a serio	us risk to occupants or	weatherization w	orkers.		
	Testing Pr				
			nditions. Clients must be provided		
information and explanation on h	ow to maintain a sanit	ary home and step	os to correct deferral conditions		
(where applicable).					
	Client Edu				
		•	d information and explanation on		
how to maintain a sanitary home	•				
informational form called, "How t		-			
_			ns" tab in the center of the page.		
Use this link, <u>https://www.kyh</u>		Developers/Sing	le-Family/Weatherization-		
<u>Assistance/Pages/WAP-Resources.aspx</u> .					
	Train	-			
			geable, qualified individuals are the		
first persons on the jobsite there					
towards preventing harm to eithe					
"evaluators") must have passed or participated in training in the following areas:					
<ul> <li>DNE/Energy Auditor Training</li> <li>The curriculum covers our program manual, the KY Field Guide, and pertinent section of the SWS.</li> </ul>					
Also included in the DNE curriculum are WX Policy, Procedure Training, Blower Door Usage and elements of					
Mold and Moisture.					
<ul> <li>Four Modules of online Energy Related Mold and Moisture (includes Indoor Air Quality).</li> </ul>					
		- (			
7	6 – Building Struc				
Concurrence with Guidance 🕅	Concurrence, Altern		Results in 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?				

2021 Kentucky Health And Safety Plan\_Combined Years

During the pre-inspection or initial inspection of the dwelling, the evaluator/energy auditor must have access to all aspects of the structure to adequately and appropriately gather data for the NEAT or MHEA energy audit. Clothing, dogs, trash, or other impediments restricting access to any portion or portions of the dwelling may necessitate deferral of the unit.

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 are repairs costing less than \$500. Building rehabilitation is beyond the scope of the WAP. H&S funds should not be used when the repair is a component of an ECM. In that case, the repair should be cost-justified as an incidental repair.

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

All KY weatherization jobs use site-specific NEAT-MHEA audit software.

#### **Client Education**

Clients must be notified in writing of structurally compromised areas when applicable.

#### Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

DNE/Energy Auditor Training or Energy Auditor Training

• WX Policy and Procedure Training

This training includes how to identify structural and roofing deficiencies.

	7.7 – Code Compliance					
		Concurrence, Alter	native, or Deferra	1		
Concurrence	Concurrence with Guidance D Alternative Guidance 🗹 Results in Deferral D					
		Func	ding			
DOE 🗹	LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹		
What guidance do you provide Subgrantees for dealing with code compliance issues in homes receiving						
weatherization measures?						

Correction of preexisting code compliance issues is not an allowable cost other than where they are triggered by performing weatherization measures. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. H&S funds should not be used when the repair is a component of an ECM, such as fixing a light fixture to install a CFL/LED bulb. In this case the cost should be cost-justified as an incidental repair. DOE funds are not allowed to fix code compliance issues unless it is part of a requirement to install a newly installed measure.

When correction of preexisting code compliance issues is triggered and paid for with WAP funds, cite specific code requirements with reference to the weatherization measure(s) that triggered the code compliance issue in the client file.

Follow State and local or AHJ codes while installing weatherization measures, including H&S measures.

What specific situations commonly trigger code compliance work requirements for your network? How are they addressed?

Condemned properties and properties where "red tagged" H&S conditions exist that cannot be corrected under this guidance must be deferred.

**Client Education** 

Clients must be notified of observed code compliance issues.

Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

The following training curriculums are updated whenever new versions of code are adopted in Kentucky.

- DNE/Energy Auditor Training or Energy Auditor Training
- WX Policy and Procedure Training

7.8 – Combustion Gases						
Concurrence, Alternative, or Deferral						
Concurrence with Guidance 🗹 Alternative Guidance 🗆 Results in Deferral 🗆						
		Fund	ling			
DOE 🗹	LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹		
Testing Protocols						

Combustion safety testing is required when combustion appliances are present.

Test naturally drafting appliances for spillage and CO during CAZ depressurization testing pre- and postweatherization and before leaving the home on any day when work has been done that could affect draft (e.g., tightening the home, adding exhaust).

Inspect venting of combustion appliances and confirm adequate clearances.

Check DOE-approved audit to determine if the appliance can be justified as an ECM prior to replacement as an H&S measure.

Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem. Inspection and testing is required per the WXPM in Sections 6.3, 6.6, 6.12, 8.22, and KHC Program Notice 06-2010. Combustion safety testing is required when combustion appliances are present.

# How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?

Personnel are instructed to wear a personal CO detection monitor always when the danger of combustion gases are present. The EPA's suggested maximum 8-hour CO exposure is 9 ppm (as measured) in room air. CO at or above 9 ppm is often caused by malfunctioning combustion appliances in the home, although cigarette smoking or auto exhaust are also common CO sources. The EPA's one-hour CO limit is 35 ppm (as measured). At any time if CO reaches a dangerous level the personnel are instructed to evacuate the dwelling and report the issues.

Correction of venting issues should be completed as an incidental repair when it is a component of an ECM. Proper venting to the outside for combustion appliances, including gas dryers is required. Combustion safety testing is required when combustion appliances are present. Inspections must include:

• Inspections of venting of combustion appliance and confirmation of adequate clearances to combustibles.

• Testing natural draft appliances for draft and spillage under worse case conditions before and after air sealing.

• Inspection of stovetop cooking burners and oven burner for operability and flame quality. Replacement of cook stoves is not allowed. Repair is an allowable H&S cost.

#### **Client Education**

Clients must be provided information and explanation of combustion safety and hazards information. This procedure is documented by using a signed receipt from the head of household which confirms that the information was not only distributed, but also explained. The "Checklist" form must be used to verify receipt and explanation of client education material. *Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-*

<u>Assistance/Pages/WAP-Resources.aspx</u>. This receipt is kept in the client file. A printable version of Preventing Carbon Monoxide Poisoning can be found here,

https://www.epa.gov/sites/production/files/2015-08/documents/pcmp\_english\_100-f-09-001.pdf

A printable version of, "What You Should Know About Space Heaters" can be found here, <u>http://www.hipspro.com/pubs/SpaceHeatSafety.pdf</u>

A printable version of "Combustion Equipment Safety" can be found here,

https://www1.eere.energy.gov/buildings/publications/pdfs/building\_america/26464.pdf

Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

• DNE/Energy Auditor Training or Energy Auditor Training

The curriculum for DNE covers combustion appliance zone safety.

• Energy Systems Training

This curriculum covers all aspects of diagnostic testing and the aspects of the Kentucky program, that are more restrictive than BPI 1200 standards, with written and hands on instruction.

7.9 – Electrical					
Con	currence, Alternati	ve, or Deferral			
Concurrence with Guidance 🗹	Alternative Guidar	ice 🗆	Results in Deferral		
	Funding				
DOE 🗹 LIHEAP 🗹	State 🛛	Utility 🗹	Other 🗹		
What guidance do you provide Subg	-		· -		
	in homes slated fo				
Minor electrical repairs are allowed whe					
and repairs are allowed when necessary	• •		•		
must be conducted; inspections and tes					
wiring shall not be covered or encapsula			-		
knob and tube requires electrical license					
insulation. Decommissioning or shieldin	<u> </u>				
How do you define "minor" or allow	•	-			
bey	ond the scope of w	eatherization			
Examples of "minor" or allowable costs	would include the f	ollowing: Popa	iring/replacing wiring fuses and		
circuit breakers to ensure that wiring is		• •			
circuit overloading. Ensuring that all wir					
	•				
a junction box with insulation, attach a flag to mark its location. Verifying that the electrical system is grounded.					
Examples of electrical repairs beyond th	e scope of weather	ization would i	nclude upgrading of electrical		
service. (i.e. 100amp to 200amp) Anything over \$500 is not considered minor repair.					
If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-					
specific audit required?					
All KY weatherization jobs use site-spec					
	Client Educa	tion			

Version 1.0

Clients must be provided information and explanation on the hazards of overloading circuits, basic electrical safety/risks and overcurrent protection when applicable.

A printable version of, "A Guide To Home Wiring Hazards" can be found here,

https://www.cpsc.gov/s3fs-public/518.pdf

The "Checklist" form must be used to verify receipt and explanation of client education material. *Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link,* 

https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-

Assistance/Pages/WAP-Resources.aspx. This receipt is kept in the client file.

Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

• DNE/Energy Auditor Training or Energy Auditor Training

This curriculum has two days devoted to electric theory, principles and code.

- Energy Systems Training
- Basic A/C and Heat Pump Inspection

This curriculum includes diagnostics, and NEC 70 code compliance.

## 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?

Formaldehyde, tobacco smoke, thinners, solvents, cleaners, and any other substances capable of negatively impacting indoor air quality are identified through the on-site inspection process. Basic strategies such as proper storage and ventilation are used to eliminate problems. Air sealing thresholds are maintained so that the presence of these pollutants is not concentrated and allowed to reach toxic levels. However, this is primarily an occupant responsibility. In some cases, deferral may be an option.

#### **Testing Protocols**

Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred. Removal of pollutants that is not necessary to perform weatherization (e.g. cleaning old paint cans and oil out of a garage) is not allowed.

When deferral is necessary, provide information in writing describing conditions that must be met for weatherization to commence.

#### **Client Education**

Clients must be informed of observed conditions and associated risks. Client must be given written information and explanation on safety and proper disposal of household pollutants when applicable. Printing copies of the information on the following links will serve a compliance to this phase. Clients must sign the Checklist to verify receipt and understanding of this information

https://www.epa.gov/indoor-air-quality-iaq/introduction-indoor-air-quality

https://www.epa.gov/indoor-air-quality-iaq/care-your-air-guide-indoor-air-quality

https://www.epa.gov/indoor-air-quality-iaq/care-your-air-guide-indoor-air-quality#learn

The "Checklist" form must be used to verify receipt and explanation of client education material. *Forms can* be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link,

<u>https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-</u> <u>Assistance/Pages/WAP-Resources.aspx</u>. This receipt is kept in the client file.

Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

• DNE/Energy Auditor Training

How to recognize potential hazards and when removal is necessary

is covered in the first day of our program manual training and during the field guide training.

7.11 – Fuel Leaks					
(please ind	licate specific fuel typ	e if policy d	iffers by type)		
	Concurrence, Alternati	ve, or Deferral			
Concurrence with Guidance	Alternative Guidar	ice 🗆	Results in Deferral 🗹		
	Funding				
DOE ☑ LIHEAP ☑	State 🗖	Utility 🗹	Other 🗹		
	Remediation Pr	otocols			
Remediation Protocols         • Sweep all gas lines, valves and joints with the electronic combustible gas detector.         • Accurately locate leaks using a noncorrosive bubbling liquid, designed for finding gas leaks.         • The following repairs require HVAC license.         • Repair all gas leaks.         • Replace kinked or corroded flexible gas connectors.         • Replace flexible gas lines manufactured before 1973. The line's manufacture date is stamped on a date ring attached to the flexible gas line. If a date ring isn't present, and you believe the gas line predates 1973, then replace the flexible gas line.         • Inform clients in writing by documenting pre and post client education checklist when fuel leaks are detected.					
How do you define allowable fu	el leak repairs, and at wh	at point are re	pairs considered beyond the scope		
of weatherization?					

Repair and replacement of fuel line leaks are allowable costs under DOE. Examples of fuel leak repairs that are considered beyond the scope of weatherization would include replacement of bulk storage tanks, meters, or repairs or replacements that would require line excavation.

Repairs over \$500 are not eligible.

#### **Client Education**

Clients must be informed of observed conditions and associated risks.

#### Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

- DNE/Energy Auditor Training
- Energy Systems Training

The curriculum for both trainings covers policy and procedures when encountering fuel leaks.

7.12 – Gas Ovens / Stovetops / Ranges					
	(	Concurrence, Alter	native, or Deferra	al	
Concurrenc	e with Guidance 🗹	Alternative Gu	idance 🛛	Results in Deferral 🛛	
		Func	ling		
doe 🗹	LIHEAP 🗹	State 🛛	Utility 🗖	Other 🗹	
What gu	idance do you provide S	ubgrantees for add	dressing unsafe ga	as ovens/stoves/ranges in homes	
		slated for wea	atherization?		
<ul> <li>When you measure CO at 200 ppm air-free at the oven vent while the oven is lit or 25 ppm as measured, 8 inches above the burner while they are lit, consider these remedies.</li> <li>Adjust to reduce the CO level or recommend a service call by a gas combustion specialist to adjust the fuel air mixture of the burners.</li> <li>Install a CO alarm in the kitchen. In the case of CO measurements greater than the above standards, arrange an immediate service call to identify and correct the cause of CO production.</li> </ul>					
• Install an exhaust fan with a capacity of 100 cubic feet per minute (cfm) in the kitchen. Kitchen exhaust fans installed as part of weatherization work must vent to outdoors and be equipped with these features.					
• 1. S	1. Solid metal ducting to the outdoors.				
• 2. A weatherproof termination fitting.					
	<ul> <li>3. A backdraft damper, installed in the fan housing or termination fitting.</li> </ul>				
	<ul> <li>4. Noise rating of 3 sones or less.</li> </ul>				
Replacement of these appliances is not allowed.					

#### **Testing Protocols**

Testing Oven:

- Check oven for stored items.
- Turn the oven on and set it to bake on high temperature.
- Sample the air-free CO level in exhaust gases at the oven vent and in the ambient air after 10 minutes.

• If the CO reading is over 200 ppm air free or if the ambient-air reading rises to 35 ppm or more during the test, discontinue testing.

Testing burners:

- Test each stove-top burner separately, using a digital combustion analyzer or CO meter.
- Hold the probe about 8 inches above the flame.
- Clean and adjust burners producing more than 25 ppm as measured

#### **Client Education**

Clients are educated about the following safety practices in using their gas range.

- Never use a range burner or gas oven as a space heater.
- Open a window and turn on the kitchen exhaust fan when using the range or oven.
- Buy and install a CO alarm and discontinue use of the oven and range burners if the ambient CO level rises above 9 ppm, and the stove cannot be cleaned and/or repaired.
- Never install aluminum foil around a range burner or oven burner.
- Keep range burners and ovens clean to prevent dirt from interfering with combustion.

• Burners should display hard blue flames. Yellow or white flames, wavering flames, or noisy flames should be investigated by a trained gas technician. The "Checklist" form must be used to verify receipt and

explanation of client education material. Forms can be found on the Weatherization Assistance

Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-

Assistance/Pages/WAP-Resources.aspx. This receipt is kept in the client file.

A printable version of "Combustion Equipment Safety" can be found here,

https://www1.eere.energy.gov/buildings/publications/pdfs/building\_america/26464.pdf

#### Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

- DNE/Energy Auditor Training
- Covers CO action levels, gas leak detection and proper test procedure.
- ASHRAE 62.2 Training
- CO action level and requirements for exhaust are covered.

7.13 – Hazardous Materials Disposal [Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.] (please indicate material where policy differs by material) Concurrence, Alternative, or Deferral

Concurrence with Guidance 🗹 🛛 🛛 Alternative Guidance			idance 🛛	Results in Deferral		
	Funding					
DOE 🗹	LIHEAP 🗹	State 🗖	Utility 🛛	Other 🗹		

#### **Client Education**

The service provider shall inform all potential clients as to the hazards associated with Lead Based Paint through the Environmental Protection Agency (EPA) pamphlet *Renovate Right*. The service provider shall document and keep on file signed statements from all clients verifying that this information has been conveyed. Barring any objection from the client, weatherization service may then be rendered with knowledge of and compliance with EPA's Lead; Renovation, Repair and Painting Program (RRP) and Lead Safe Work Practices (LSWP).

Refrigerant:

Clients are to be advised not to disturb refrigerant.

Asbestos:

Clients must be informed that suspected asbestos is present and how precautions will be taken. Clients will be instructed not to disturb suspected asbestos containing material. Clients must be provided information and explanation on asbestos safety information and steps to correct deferral conditions when applicable. The clients are required to sign a form, provided by the weatherizing agency, indicating they have been informed when applicable.

Inform clients about proper recycling of fluorescent bulbs and mercury thermostats by stores, municipal waste departments, or other recycling organizations.

Inform client in writing of hazards associated with hazardous waste materials being generated/handled in the home. Using the, "Protect Your Family from Lead in Your Home" pamphlet or printing a copy from this link <u>https://www.epa.gov/sites/production/files/2017-06/documents/pyf\_bw\_booklet\_format\_2017\_508.pdf</u> will be considered as compliant lead information. Using the "Asbestos In The Home" pamphlet or printing the information found on this link <u>https://www.cpsc.gov/safety-education/safety-guides/home/asbestos-home</u> will be considered as compliant asbestos information. The "Checklist" form must be used to verify receipt and explanation of client education material. *Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, <u>https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-Assistance/Pages/WAP-Resources.aspx</u>. This receipt is kept in the client file.* 

#### Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or "evaluators") must have passed or participated in training in the following areas:

- DNE/Energy Auditor Training or Energy Auditor Training
- Energy Systems Training
- Lead Based Weatherization Safe Work Practices
- RRP Certified Renovator
- ASHRAE 62.2 Training

The following topics are covered in the curriculum of the above trainings when hazardous material subject matter is appropriate.

Appropriate Personal Protective Equipment (PPE) for working with hazardous waste materials.

Disposal requirements and locations.

Health and environmental risks related to hazardous materials.

#### **Disposal Procedures and Documentation Requirements**

#### Lead:

The certified renovator must perform the post-renovation cleaning verification. Refrigerants for: air conditioners & heat pumps.

When replacing a refrigerator, the old refrigerator must be removed from the property and disposed of properly per Section 608 of the 1990 Clean Air Act, as amended by 40 CFR 82, Subpart F, 1995. See *Specifications for the Low-Income Weatherization Program* for proper disposal methods. Written documentation proving the old unit was disposed of properly is required. Asbestos:

No handling or altering of asbestos materials is allowed. It will be mandatory that all dwelling needs evaluators/energy auditors, crew leaders and weatherization workers attend a course that is specifically targeted to educating these professionals on how to identify asbestos containing materials and work around them without creating a hazard. This course is presented via webinar or web posting, by KHC training staff. 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.

Refer to *Lead* and *Asbestos* sections for more information on those topics.

# 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)?

Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed.

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.

When necessary to effectively weatherize the home, workers may make minor repairs and installations, as defined by the Grantee; otherwise these measures are not allowed. Minor repairs such as repairing stairs and replacing/repairing handrails are allowed. Minor repair is defined as measures costing less than \$500.

#### Training

KY WX has in place a certification process which works to ensure knowledgeable, qualified individuals are the first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or

"evaluators") must have passed or participated in training in the following areas:

• DNE/Energy Auditor Training

Injury and prevention of Occupants/Workers safety is covered in the visual inspection phase of the evaluation procedures.

### 7.15 – Lead Based Paint

#### Concurrence, Alternative, or Deferral

Concurrence v	vith Guidance 🗹	Alternative Gu	idance 🛛	Results in Deferral		
_						
Funding						
DOE 🗹	LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹		
		Safe Work	Protocols			
		-		(RRP) when working in pre-1978		
housing unless	s testing confirms the v	vork area to be lea	d free.			
Deferral is req	uired when the extent	and condition of le	ad-based paint in	the house would potentially create		
further H&S ha	azards.					
Only those cos	sts directly associated w	with the testing and	d lead safe practio	ces for surfaces directly disturbed		
during weathe	rization activities are a	llowable.				
All workers on	site on any Weatheriz	ation project, whe	ther they be a cre	w based employee of one of the		
subcontractor	s or a private sector co	ntractor, must con	nplete an eight (8)	) hour Lead Safe Work Practices		
training. The in	ntent of this course is t	o educate the wor	ker about lead ha	zards and the proper ways to deal		
with them, and	d in doing so, to work i	n such a way as to	not expose clients	s or their families to these hazards.		
All crews and	contractors are require	ed to carry HEPA va	cuum machines, r	respirators, disposable bio suits, and		
	required for Lead Safe					
		• •	-	nce for onsite protocols:		
-	-fitting respirator and o	-				
		n tape and plastic.	Cover furniture, ca	arpet, and other surfaces with		
plastic drop cl	•					
	on disturbed areas to r					
-		ep carefully and we	t mop as needed.	. Use a HEPA vacuum cleaner to		
collect dust an	n away from work area	a at all timos				
			d Safe Work Prac	tices and training, it illustrates KY		
	ss of the issue and how	•		-		
WX 3 awarene		-	-			
Testing Protocols           Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is						
	EPA-approved testing n		in be distarbed by	with measure insumation is		
	Testing methods must be economically feasible and justified.					
e		• •		red		
Job site set up and cleaning verification by a Certified Renovator is required. Grantees must verify that crews are using lead safe work practices during monitoring.						
Sub-grantees must follow EPA's Lead Renovation, Repair and Painting (RRP). In addition to RRP,						
Weatherization requires all weatherization crews working in pre-1978 housing to be trained in Lead Safe						
	•			n of lead-based paint in the house		
	ally create further heal	•		•		
•	•	Client Ed				

The head of household of every home to be weatherized receives the informational pamphlet "Renovating Right". The inspector/energy auditor also conducts a client education segment as part of the initial inspection to ensure that the occupants are fully aware of the hazards posed by Lead Based Paint exposure. Using the, "Protect Your Family from Lead in Your Home" pamphlet or printing a copy from this link <u>https://www.epa.gov/sites/production/files/2017-06/documents/pyf\_bw\_booklet\_format\_2017\_508.pdf</u> will be considered as compliant lead information. The "Checklist" form must be used to verify receipt and explanation of client education material. *Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-Assistance/Pages/WAP-Resources.aspx.* This receipt is kept in the client file.

#### **Training and Certification Requirements**

All Sub-grantees and private sector contractors must have Lead Renovator Firm status. All evaluators (inspectors) must have Lead Renovator (RRP) certification as well as all crew leaders. This is a requirement for contracting with the program. This applies to contractors performing and/or managing the following activities: weatherization related work, inspection services, energy auditing services, dwelling needs evaluation or like services. Private contractors must also meet the requirement of having adequate RRP certified employees among their ranks. As new contractors apply to work on WX projects the EPA requirements must be explained during the application process.

Private contractors will be required to furnish proof of RRP and Lead Renovator Firm status as a condition of working for the WX program. The monitoring staff will routinely check that documentation is on file at each agency, verifying compliance with the EPA rules.

All weatherization crews working on pre-1978 homes must receive the DOE approved LSW training and a certified renovator must be assigned to the project and be readily available.

State Monitor/Trainers must be Certified Renovators and complete a KHC-approved LSWP training.

#### **Documentation Requirements**

The agencies must give the client a copy of the EPA publication *The Lead-Safe Certified Guide to Renovate Right pamphlet, July 2011 edition,* and have the client sign the Sample Pre-Renovation Form located in the back of the Pamphlet to certify the client has received the pamphlet.

That signed form must be kept in the client's file as proof the client received educational material about the dangers of lead paint.

Documentation in the client file must include Certified Renovator certification; any training provided on-site; description of specific actions taken; lead testing and assessment documentation; and, photos of site and containment set up. Include the location of photos referenced if not in file.

7.16 – Mold and Moisture					
(Includin	g but not limited t	to: drainage, gu	tters, down sp	outs, extensions, flashi	ng,
sump p	umps, dehumidifie	ers, landscape,	vapor retarder	s, moisture barriers, etc	c.)
		Concurrence, Alter	native, 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 moisture related issues (e.g., drainage, gutters, down spouts, moisture barriers, dehumidifiers, vapor barrier on bare earth floors) in homes slated for weatherization?

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.

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.

Where severe Mold and Moisture issues cannot be addressed, deferral is required.

Mold cleanup is not an allowable H&S cost.

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&S budget category.

Minor moisture problems that can be corrected within the scope of the program include:

• Install a ground moisture barrier, which is a piece of heavy plastic sheeting (6 mil minimum) laid on the ground.

• Overlap the ground moisture barrier seams by 12" and seal with polyurethane adhesive.

- Verify that clothes dryers and exhaust fans vent to the outdoors and not into crawl spaces or attics.
- Seal water leaks in the foundation.
- Seal water leaks in the roof.
- Remove unvented space heaters, a major source of moisture, from the home.
- Educate clients about ways of reducing home moisture that are under their control.

• Educate customers to avoid excessive watering around the home's perimeter. Watering lawns and plants close to the house can dampen its foundation. In moist climates, keep shrubbery away from the foundation, to allow air circulation near the foundation.

• Insulate, air-seal

Major moisture problems that cannot be corrected within the scope of the program include:

• An enclosed crawlspace or basement that has standing water for significant periods of time due to inadequate ground or surface water drainage.

• Any building with no overhangs and no gutters, exhibiting signs of major moisture problems such as blistering paint and extensive mold/mildew on the inside of the house.

How do you define "minor" or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?

The Kentucky Weatherization program is not a mold remediation program and funds should not be used to test, abate, remediate, purchase insurance, or alleviate existing mold conditions identified during the audit, the work performance period or the quality control inspection. Most typically, weatherization services may need to be delayed. Upon the discovery of a mold condition, the local agency must provide some form of notification or disclaimer to the client describing what was done to the home in an attempt to alleviate the condition or to prevent new mold growth.

Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary to weatherize the home and to ensure the longterm stability and durability of the measures. Where severe mold and moisture issues cannot be addressed, deferral is required. The limited repairs or corrections described above must be less than \$500.

**Client Education** 

The clients must be provided with a disclaimer on mold and moisture awareness. A printable version of "A Brief Guide to Mold, Moisture and Your Home" can be found here,

https://www.epa.gov/sites/production/files/2016-10/documents/moldguide12.pdf

The "Checklist" form must be used to verify receipt and explanation of client education material. *Forms can* be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link

<u>https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-</u> Assistance/Pages/WAP-Resources.aspx.

Training

A mold awareness webinar is required training for all crews/contractors. This is available on the KHC website here, <u>https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-</u>

<u>Assistance/Pages/WAP-Resources.aspx</u> under the Energy Related Mold & Moisture Webinar

7.17 – Pests						
Concurrence, Alternative, or Deferral						
Concurrence	e with Guidance 🗹	Alternative Guidan	ce 🗆	Results in Deferral 🗹		
		Funding				
DOE 🗆	LIHEAP 🗖	State 🗖	Utility 🛛	Other 🗖		
What guida	nce do you provide Sul	bgrantees for dealing wi slated for weathe	• •	pest intrusion prevention in hom	es	
Pest infestat	ion within the dwelling	or in any area outside o	f the dwelling	where service provider staff or		
subcontracto	ors would have to work	is cause for deferral. (Pe	ests include, b	ut are not limited to: fleas, roache	es,	
rodents).						
				onstitute an H&S hazard, the		
•		propriate action based or	•	sk.		
Failure or the	<i>v</i> 11	priate actions must resul				
		ion Thresholds, Beyond				
	•	pre-inspection. Any sign	s of excessive	pest inhabitance (at discretion of	ŕ	
evaluator) re	esults in a deferral.					
		Testing Proto				
A visual/sen	sory inspection is perfor	rmed to determine infes				
-		Client Educat				
Clients must	be informed in writing	of observed condition a	nd associated	risks.		
Training						
	•			geable, qualified individuals are t	he	
first persons on the jobsite thereby identifying, H&S issues before any work is done. This goes a long way						
towards preventing harm to either crew members or clients. KY WX inspectors/energy auditors (or						
"evaluators") must have passed or participated in training in the following areas:						
DNE/Energy Auditor Training						
Covered in d	leferral curriculum.					

	7.18 – Radon			
Concurrence, Alternative, or Deferral				
Concurrence with Guidance 🗹	Alternative Guidance 🛛	Results in Deferral 🗹		

	Funding					
DOE 🗆	LIHEAP 🗖	State 🛛	Utility 🛛	Other 🛛		
			Subgrantees around			
				ce the likelihood of making		
radon issues worse.	In extreme case		•			
Deden mitigation is a			rotocols			
Radon mitigation is r						
kept in the client file		nt form prior to rec	eiving weatherization	n services. This form must be		
	• •	•	•	nary measures based on EPA		
Healthy Indoor Envir issues worse.	onment Protoco	ols for Home Energy	Upgrades, to reduce	the possibility of making rad	lon	
	•		•	re/thermal boundary with 6		
	lene sheeting, l	apped at least 12" a	ind sealed with appro	opriate sealant at all seams, w	valls	
and penetrations.						
	•			floor and/or foundation		
		oits, isolating the ba	sement from the con	ditioned space, and ensuring		
crawl space venting	is installed.	Client Ed	ucation			
Clients must be prov	idad with the El			nce can be verified by using	<b>.</b>	
the, "A Citizen's Gu		-	•		5	
https://www.epa.g		• • • • •	0 17	uns mik,		
12/documents/201						
12/00cuments/201						
	т,	aining and Certifica	ation Requirements			
			and negation chiefts			
Our DNE course cur	riculum covers 1	radon, what it is and	how it occurs, include	ling what factors may make		
radon worse, and precautionary measures that may be helpful.						
Our DNE and Retrof	Our DNE and Retrofit Installer course curriculum covers proper vapor retarder installation.					
A zonal map can be located at http://www.epa.gov/radon/pdfs/zonemapcolor.						
		Documentation				
The client education	checklist (which	n includes radon ed	ucation) must be in t	ne client file.		
740 Cofotu						

7.19 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers						
	Concurrence, Alternative, or Deferral					
Concurrence with Guidance  Alternative Guidance  Results in Deferral						
		Fund	ling			
DOE 🗹	LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹		
What is your policy for installation or replacement of the following:						

#### Smoke Alarms:

- The alteration or repair will require the removal of wall or ceiling finishes exposing the structure, and
  No attic, crawl or basement is available which can provide access for hard wiring and interconnection without the removal of interior finishes.
- In every sleeping room.
- Outside of each sleeping area in the immediate vicinity of the bedrooms.
- On each additional story (including basements).

• In split-level dwellings where an intervening door is located between the adjacent levels. However, in splitlevel dwellings without an intervening door, a smoke alarm installed on the upper level shall suffice for the adjacent lower level, provided the lower level is less than one full story below the upper level.

• Near every combustion zone. This alarm can serve the requirements of bullets 1 through 4 where feasible.

Carbon Monoxide Alarms: CO alarms must be UL-listed, installed in accordance with the manufacturer's recommendations and located in compliance with the KWFG Chapter 1 starting with Section 1.2. Installed CO alarms must have the capability to accurately detect and display low levels of carbon monoxide to 10 ppm and comply with other program requirements. Electric plug-in CO alarms must have battery backup.CO alarms designed for the hearing impaired must be installed when the client is hearing impaired.

Fire Extinguishers: Providing fire extinguishers is allowed only when solid fuel is present. Fire extinguishers must be installed according to the manufacturer's recommendations, be type ABC, UL-listed,  $\leq$  10 lb. and with a permanently affixed wall bracket to receive the extinguisher.

#### **Testing Protocols**

A visual inspection is performed to determine the need and location of CO/Smoke alarms and fire extinguishers.

#### **Client Education**

Client must be provided verbal and written information on the use of devices installed. . The "Checklist" form must be used to verify receipt and explanation of client education material. Forms can be found on the Weatherization Assistance Program Resources page under the "Weatherization Forms" tab in the center of the page. Use this link, <u>https://www.kyhousing.org/Partners/Developers/Single-</u> <u>Family/Weatherization-Assistance/Pages/WAP-Resources.aspx</u>. This receipt is kept in the client file. A printable version of Preventing Carbon Monoxide Poisoning can be found here,

https://www.epa.gov/sites/production/files/2015-08/documents/pcmp\_english\_100-f-09-001.pdf

A printable version of, "What You Should Know About Space Heaters" can be found here,

http://www.hipspro.com/pubs/SpaceHeatSafety.pdf

A printable version of "Combustion Equipment Safety" can be found here,

https://www1.eere.energy.gov/buildings/publications/pdfs/building\_america/26464.pdf

#### Training

The client must sign a written agreement to allow a fire extinguisher to be installed in the home within sight of the solid fuel burning heat system when standing at the unit. The agency must discuss and provide the client with information on the use and upkeep of the extinguisher.

- DNE/Energy Auditor Training
- There is a module in the curriculum that covers the operation and location of these devices.

# 7.20 – Occupant Health and Safety Concerns and Conditions

Concurrence, Alternative, or Deferral

Concurrence with Guidance  $\Box$ 

Alternative Guidance 🗹

Results in Deferral 🛛

		Fund	ling		
doe 🗹	LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹	
What guidan	ce do you provide Sub	-	• •	ealth and safety concer	ns related
-		to components of			
•		•	•	rt of initial application f	
	•	-		o and during the audit.	
			•	worker contact informa	-
	•	n office staff phor	ie numbers) be give	en to the client so clie	nt can
inform of ar					
-	• •	-	-	occupants suffer from h	ealth
	conditions that may be		-		
		•	•	elderly, persons with di	sabilities
	th concerns) before pro				
What guid	dance do you provide S	-		ealth concerns when the	ney are
		identi		the transformation of the first	ha and
•	•	-		titute a health of safety	-
				erity of risk. Temporary	
	• •		•	ubmitted to KHC and ap take appropriate action	•
result in defe	•	action is taken. Fair		lake appropriate action	iis must
result in dele		Client Ed	ucation		
The Health &	Safaty Client Applicati			orm must be reviewed a	and signed
			-	ore the evaluation is sta	-
-	entation Form(s) have b		-		
				pre proceeding with eva	
		•	•		
services. The Health & Safety Client and Home Screening Questionnaire (H&S Screening) form must be reviewed and signed by the client at the time of application intake and by evaluator before					
the evaluation is started. It can be found on the Weatherization Assistance Program Resources page under					
the "Weatherization Forms" tab in the center of the page. Use this link,					
				tion-Assistance/Pages/V	NAP-
Resources.as				, , , , , - , ,	

7.21 – Ventilation and Indoor Air Quality				
C	Concurrence, Alternat	tive, or Deferr	al	
Concurrence with Guidance 🗹	Alternative Guida	ince 🛛	Results in Deferral 🛛	
	Funding	g		
DOE 🗹 LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹	
Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)				
Testing and Final Verification Protocols				

On both initial and QCI inspections home is evaluated based on CFM tightness, existing fan flow, square footage, # of bedrooms, and window placement to determine the required mechanical ventilation based on ASHRAE 62.2-2016 standards.

Measure fan flow of existing fans and of installed equipment to verify performance.

#### **Client Education**

Provide information to the client on the function, use, and maintenance of ventilation systems and components. The client must also be provided with a disclaimer that ASHREA 62.2 does not negate high polluting sources or guarantee indoor air quality.

Training

ASHRAE 62.2-2016 training of evaluators, energy auditors, and crew leaders is provided by KHC. This training is required and includes proper sizing and evaluation of existing and new systems, depressurization tightness limits, critical air zones, etc. In addition, compliance to standard is evaluated during state monitoring visits to sub grantee and results are used to recommend additional training and focus training efforts.

7.22 – Window and Door Replacement, Window Guards				
	(	Concurrence, Alter	native, or Deferral	
Concurrence v	vith Guidance 🗹	Alternative Gu	iidance 🛛	Results in Deferral 🛛
		Fund	ding	
DOE 🗹	LIHEAP 🗹	State 🗖	Utility 🗹	Other 🗹
What guida	ance do you provide to	o Subgrantees rega	arding window and	door replacement and window
		guai	rds?	
Replacement,	repair, or installation of	of doors, windows	or window guards i	s not an allowable H&S cost but
may be allowe	ed as an ECM if it is cos	t justified.		
		Testing P	Protocols	
A visual inspec	ction, in conjunction wi	ith diagnostic testi	ng, (i.e. blower doo	r) is performed to determine the
condition of early	xisting doors and wind	ows.		
Client Education				
Provide written information on lead risks wherever issues are identified. See Lead guidance.				
Training				
Training during DNE and KY WAP Policies and Procedures covers client education in respect to window				
replacement a	and H&S concerns whe	n encountering lea	d.	

7.23 – Worker Safety (OSHA, etc.)					
Concurrence, Alternative, or Deferral					
Concurrence with Guidance 🗹 Alternative Guidance 🗆 Results in Deferral 🗆					
Funding					
DOE 🗹 🛛 L	IHEAP 🗹	State 🗖	Utility 🗹	Other 🗹	
How do you verify safe work practices? What is your policy for in-progress monitoring?					

Field monitoring performs unit file review for evidence of safe work practices. Field monitoring of in progress units will perform assessments to determine if crews are utilizing safe work practices. Workers must follow OSHA standards and take precautions to ensure the health and safety of themselves and other workers. Training and Certification Requirements

The Kentucky Weatherization Program no longer requires the completion of either the OSHA-10 or the OSHA-30 training courses.

However, DOE will continue to encourage sub grantees to provide this training to their field staff since job site safety is very important. No part of this notice eliminates the need for sub grantees to follow OSHA standards. OSHA still requires that all workers receive training to address specific hazards

that the worker can reasonably expect to encounter on a job site such as (but not limited to) fall protection, use of personal protective equipment, electrocution and the safe operation of power tools.

KHC continues to strongly recommend this training for all workers as a best practice even though it is not required.

Workers must follow OSHA standards where required and take precautions to ensure the H&S of themselves and other workers.

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).

		7.24 – <ad< th=""><th>d in Topic&gt;</th><th></th><th></th></ad<>	d in Topic>		
Concurrence, Alternative, or Deferral					
Concurrence with Guidance $\Box$		Alternative Guidance 🛛		Results in Deferral	
		Fund	ding		
DOE 🗖	LIHEAP 🗖	State 🛛	Utility 🛛	Other 🗖	
		Remediatio	n Protocols		
		Testing F	Protocols		
		Client Ec	ducation		
Training					

		d in Topic>	7.24 – <ad< th=""><th></th><th></th></ad<>			
Concurrence, Alternative, or Deferral						
]	Results in Deferral 🛛	Alternative Guidance 🛛		with Guidance 🛛	Concurrence with Guidance $\Box$	
Funding						
	Other 🗖	Utility 🛛	State 🛛	LIHEAP 🗖	DOE 🗆	
Remediation Protocols						
Testing Protocols						

2021 Kentucky Health And Safety Plan\_Combined

Client Education
Training