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 20% of the final average of DOE and LIHEAP (not leveraged in the DOE State Plan) funded costs per unit. No single unit shall exceed $5,000 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 08.28.2025) 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 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 20 percent expenditures for H&S.

Twenty (20) 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 20 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

Total Average H&S Cost Per Unit			$0.00
Enter Estimated Production (Annual File: IV.2 WAP Production Schedule) ➔			
Enter Estimated Program Operations Budget ➔			
H&S Budget (Total Average H&S Cost Per Unit * Estimated Production)			$0.00
Requested H&S Percentage Per Unit (H&S Budget/Program Operations)			

Kentucky's H&S expenses continue to rise. Last year, we increased our H&S average to 17 percent with DOE's approval of our state plan. We use other braided funding to help keep the percentages on the DOE funding lower; however, the burden continues to rise and pull on those funds as well, which ultimately is affecting the number of completions in the entire program.

Over the last 4.5 years while our H&S averages have stayed below 15% on DOE Formula funding. Our LIHEAP H&S averages have exceeded 15% and have steadily risen. (LH25 is only July 2024 – December 2024.)

	Prog Ops	H&S	
LH25	$ 2,289,508.27	$ 421,533.17	15.55%
LH24	$ 4,595,799.93	$ 1,095,695.94	19.25%
LH23	$ 4,805,104.25	$ 1,089,191.33	18.48%
LH22	$ 3,808,308.61	$ 821,990.80	17.75%
LH21	$ 3,885,135.11	$ 807,734.76	17.21%

With braiding the funding our H&S for all completions in the weatherization program range from 14.77% in 2021 to 17.60% in 2024, and the LIHEAP funding absorbs the largest impact of that increase. The new H&S average of 20 percent from DOE will help us continue to install H&S measures and braid our funding in the most effective strategy.

According to Appendix A, in a 12-month period, Kentucky spent $1.4 million in formula and other braided funding (LIHEAP) on H&S. Even with an increase to 20 percent for DOE formula H&S, Kentucky will still require about a significant amount of other funding to install all the needed H&S measures. See Appendix A for a complete breakdown of installed H&S measures with materials and labor breakdowns.

The average DOE cost for abating health and safety hazards shall not exceed 20 percent of the final average of DOE costs per unit. No single unit shall exceed $5,000 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. (10 CFR 440 "Definitions")

We will not move any H&S measure to IRMs.
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 IRM and follow the guidelines set forth in the Master File, section 5.1

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
https://www.kyhousing.org/programs/wap-resources

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. While the COVID-19 pandemic is seemingly over, we still allow a self-deferral due to illness and a revisit when the client is feeling better.

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, https://www.kyhousing.org/programs/wap-resources

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, 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?

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.*
☐ "Red tagged," inoperable, or nonexistent primary heating system may be replaced, repaired, or installed where climate conditions warrant, consistent with this guidance.
☐ 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.
☐ Use proper sizing protocols (Manual J, wiring sizing, breaker sizing, 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.
☐ 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 a secondary heat source and where the unit conforms to ANSI Z21.11.2. Secondary heat source only applies to site-built. Removal is required in the mobile home. 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

To document "at-risk", subgrantees will need a letter by a qualified medical professional, which documents that the client's health requires AC and would be improved with it installed.

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,* https://www.kyhousing.org/programs/wap-resources

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 electric systems verify that all wiring and breakers is compliant with data plate and NEC.

On combustion equipment, inspect chimney and flue and for Category 1 appliances, 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 linkhttps://www.kyhousing.org/programs/wap-resources.* 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

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

All personnel performing repairs or replacements of air conditioning and heating systems must be trained and certified in the field of their designation.

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 KY WAP. Removal is not allowed.

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

Concurrence, Alternative, or Deferral		
Concurrence with Guidance ☐	Alternative Guidance ☑	Results in Deferral ☑

Funding				
DOE ☐	LIHEAP ☐	State ☐	Utility ☐	Other ☐

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

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 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 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/programs/wap-resources This receipt is kept in the client file.

Training and Certification Requirements

KHC requires 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.

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 suspected to be present, unless third party testing (not paid for by the KY WAP) determines otherwise, the unit is to be deferred.				
Testing Protocols				
Asbestos encapsulation and testing cost are not reimbursable by 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). 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/programs/wap-resources. This receipt is kept in the client file.				
Training and Certification Requirements				
No handling and/or altering of asbestos materials is allowed. KHC requires 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.				

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 ☑
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 linkhttps://www.kyhousing.org/programs/wap-resources.* This receipt is kept in the client file.
Training and Certification Requirements
No handling and/or altering of asbestos materials is allowed. KHC requires 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 Unsanitary Conditions
(odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.)

Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☑
		Unallowable Measure ☐		
Funding				
DOE ☐	LIHEAP ☐	State ☐	Utility ☐	Other ☑
What guidance do you provide Subgrantees for dealing with biological and/or unsanitary conditions in homes slated for weatherization?				
Addressing bacteria and viruses is not allowed. Cleaning or repairing biological and unsanitary conditions to perform weatherization is not allowed. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers.				
Testing Protocols				
A sensory inspection is required. Clients must be informed of observed conditions. Clients must be provided information and explanation on how to maintain a sanitary home and steps to correct deferral conditions (where applicable).				
Client Education				

Clients must be informed of observed conditions. Clients must be provided information and explanation on how to maintain a sanitary home and steps to correct deferral conditions (where applicable). An informational form called, "How to Maintain a Clean Home" *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/programs/wap-resources*.*

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

The curriculum covers our program manual, the KY Field Guide, and pertinent section of the SWS.
Also included in the DNE curriculum are WX Policy, Procedure Training, Blower Door Usage and elements of Mold and Moisture.

• Four Modules of online Energy Related Mold and Moisture (includes Indoor Air Quality).

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?

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 will be less than 40% of the total H&S measures. Examples of minor repairs would be repairing a section of roofing or structure that is below 10sqft in size. 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 site-specific 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, 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?

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.

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?

Non code compliant wiring or breaker sizing on secondary heat systems or primary heat systems that are in need of repair. 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

Version 1.0

Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				
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 post-weatherization and before leaving the home on any day when work has been done that could affect draft (e.g., tightening the home, adding exhaust). 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 70ppm (as measured) 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/programs/wap-resources. 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

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 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 comply with BPI 1200 standards, with written and hands on instruction.

7.9 – Electrical

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 electrical hazards, including knob & tube wiring, in homes slated for weatherization?

Minor electrical repairs are allowed where health and safety of the occupant/worker(s) is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures. A visual inspection must be conducted; inspections and testing must be performed as described in the WXPM. Knob and tube wiring shall not be covered or encapsulated with insulation in Kentucky. 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. Decommissioning of knob-and-tube wiring to allow for insulation. When a wiring connection is broken, a certified electrician must be used to repair the connection.

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

Examples of “minor” or allowable costs would include the following: Repairing/replacing wiring, fuses, and circuit breakers to ensure that wiring isn’t overloaded. Installing S-type fuses (where appropriate) to prevent circuit overloading. Ensuring that all wire splices are enclosed in electrical junction boxes. If you plan to cover a junction box with insulation, attach a flag to mark its location. Verifying that the electrical system is grounded.
An example of electrical repairs beyond the scope of weatherization would include upgrading of electrical service. (i.e. 100amp to 200amp.).

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-specific NEAT-MHEA audit software.

Client Education

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/programs/wap-resources. 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 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.

All personnel performing repairs or replacements of electrical systems must be trained and certified in the field of their designation.

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,* https://www.kyhousing.org/programs/wap-resources*.* 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 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 indicate specific fuel type if policy differs by type)*				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☑
Funding				
DOE ☑	LIHEAP ☑	State ☐	Utility ☑	Other ☑
Remediation Protocols				

- Sweep all gas lines, valves and joints with the electronic combustible gas detector compliant with BPI 1200 standard.
- Accurately locate leaks using a noncorrosive bubbling liquid, designed for finding gas leaks.
- The following repairs require proper license or designation.
- 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 fuel leak repairs, and at what point are repairs considered beyond the scope of weatherization?

Repair and replacement of fuel line leaks are allowable costs under DOE examples of allowable cost would be tightening or replacing existing fittings, installation of drip leg, or appliance connectors. 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.

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 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.

All personnel performing repairs or replacements of fuel lines must be trained and certified in the field of their designation.

7.12 – Gas Ovens / Stovetops / Ranges

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 addressing unsafe gas ovens/stoves/ranges in homes slated for weatherization?

When you measure CO at 225 ppm as measured at the oven vent while the oven is lit or observe the burner is not burning properly while they are lit, consider these remedies.
• 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.
• 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. Install an exhaust fan on all gas stoves unless KHC approves the non-installation of the exhaust fan.
1. Solid metal ducting to the outdoors.
2. A weatherproof termination fitting.
3. A backdraft damper, installed in the fan housing or termination fitting.
4. Noise rating of 3 sones or less.
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 highest temperature.
• Sample the CO level in exhaust gases at the oven vent and in the ambient air after 5 minutes**.**
• If the CO reading is over 225 ppm as measured or if the ambient-air reading rises to 70 ppm or more during the test, discontinue testing.
Testing burners:
• Test each stove-top burner separately, Performing a visual inspection.
•
• Have a certified individual clean and adjust burners not burning properly

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/programs/wap-resources. 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 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.

All personnel performing repairs or replacements of gas ranges and ovens must be trained and certified in the field of their designation.

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 ☐		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 https://www.epa.gov/lead/protect-your-family-lead-your-home-english will be considered as compliant lead information. 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/programs/wap-resources. 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 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.

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 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 with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐

Funding
DOE ☑ LIHEAP ☑ State ☐ Utility ☑ Other ☑
Safe Work Protocols
Crews must follow EPA's Lead; Renovation, Repair and Painting Program (RRP) when working in pre-1978 housing unless testing confirms the work area to be lead free. Deferral is required when the extent and condition of lead-based paint in the house would potentially create further H&S hazards. Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowable. All workers on site on any Weatherization project, whether they be a crew-based employee of one of the subcontractors or a private sector contractor, must complete an eight (8) hour Lead Safe Work Practices training. The intent of this course is to educate the worker about lead hazards and the proper ways to deal with them, and in doing so, to work in such a way as to not expose clients or their families to these hazards. All crews and contractors are required to carry HEPA vacuum machines, respirators, disposable bio suits, and all other items required for Lead Safe Work Practices. The program manual addresses this area specifically with detailed guidance for onsite protocols: • Wear a tight-fitting respirator and disposable coveralls. • Seal work areas within a home with tape and plastic. Cover furniture, carpet, and other surfaces with plastic drop cloths or tarps. • Spray water on disturbed areas to minimize dust. • Clean-up work area each day. Sweep carefully and wet mop as needed. Use a HEPA vacuum cleaner to collect dust and paint chips. • Keep children away from work area at all times. While this represents only a summary of the overall Lead Safe Work Practices and training, it illustrates KY WX's awareness of the issue and how it is integral to safety on weatherization projects.
Testing Protocols
Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods. If testing is not performed and lead paint is suspected, LSWP must be performed. Testing methods must be economically feasible and justified. 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. Subgrantees 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 Weatherization (LSW). Deferral is required when the extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
Client Education

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 https://www.epa.gov/lead/protect-your-family-lead-your-home-english 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/programs/wap-resources. This receipt is kept in the client file.
Training and Certification Requirements
All Subgrantees 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. *Client files and Subgrantee Employee certifications are reviewed during KHC Technical and Programmatic monitoring. Employee certification for RRP certification is reviewed by the KHC Programmatic Monitor. Client files are reviewed for proper documentation including photo documentation.
Documentation Requirements
The Subgrantees 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

(Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.)

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 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 if the mold affects more than 10 square feet. 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 (in accordance of this plan) 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 long-term stability and durability of the measures. Where severe mold and moisture issues cannot be addressed, deferral is required. The limited repairs or corrections are defined as replacing or repairing leaky DWH (with proper approval), fittings or connections, installation of appliance connectors or PTR valves. In some cases, where duct insulation/sealing will not provide a 1.0 SIR, Kentucky will all those two measures to be included in H&S so that we do not increase the conditions for mold and moisture to grow. These two measures may be included in the audit first with other braided funds included to try to produce a SIR of a 1.0 or greater.
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* https://www.kyhousing.org/programs/wap-resources.
Training
A mold awareness webinar is required training for all crews/contractors. This is available on the KHC website here, https://www.kyhousing.org/programs/wap-resources under the Energy Related Mold & Moisture Webinar

7.17 – Pests				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☑
Funding				
DOE ☐	LIHEAP ☐	State ☐	Utility ☐	Other ☐
What guidance do you provide Subgrantees for dealing with pests and pest intrusion prevention in homes slated for weatherization?				
Pest infestation within the dwelling or in any area outside of the dwelling where service provider staff or subcontractors would have to work is cause for deferral. (Pests include, but are not limited to: fleas, roaches, rodents). When a person's health may be at risk and/or WAP work activities could constitute an H&S hazard, the occupant will be required to take appropriate action based on severity of risk. Failure or the inability to take appropriate actions must result in deferral.				
Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred				
A visual inspection is performed on pre-inspection. Any signs of excessive pest inhabitance (at discretion of evaluator) results in a deferral.				
Testing Protocols				
A visual/sensory inspection is performed to determine infestation.				
Client Education				
Clients must be informed in writing of observed condition 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 training in the following areas: • DNE/Energy Auditor Training Covered in deferral curriculum.				

7.18 – Radon				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☑
Funding				

DOE ☑	LIHEAP ☑	State ☐	Utility ☐	Other ☐

What guidance do you provide Subgrantees around radon?

In homes where radon may be present, precautions should be taken to reduce the likelihood of making radon issues worse. Extreme cases will result in deferral. The following information from DOE WPN 22-7 is provided to all KY WAP Subgrantees:

Radon

Action/Allowability

Required (when applicable):

- Cover exposed dirt floors within the pressure/thermal boundary with a sealed soil gas retarder
- Cover sump well/pits with airtight covers
- Implement ventilation as required by ASHRAE 62.2-2016

Allowable:

- In homes where radon may be present, work scope may include additional precautionary measures based on *EPA Healthy Indoor Environment Protocols for Home Energy Upgrades*.
- Other precautions may include, but are not limited to, sealing any observed floor and/or foundation penetrations, isolating the basement from the conditioned space, and ensuring crawl space venting is installed and operable.

Prohibited:

- Using DOE WAP H&S funds for radon mitigation.

Occupant Education

Required:

- Provide all occupants EPA's A Citizen's Guide to Radon and inform them of radon related risks.
- Occupants must sign an informed consent form prior to receiving weatherization services.

Testing Protocols

Radon mitigation is not an allowable H&S cost.

Clients must sign an informed consent form prior to receiving weatherization services. This form must be kept in the client file.

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.

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 (sealed soil gas retarder).

Other precautions **must include** sealing any observed floor and/or foundation penetrations, including covering sump well/pits with airtight covers, isolating the basement from the conditioned space, ensuring crawl space venting is installed, and implement ventilation as required by ASHRAE 62.6-2016.

Client Education

Clients must be provided with the EPA consumer's guide to radon. Compliance can be verified by using the, "A Citizen's Guide to Radon" pamphlet or by printing a copy from this link, https://www.epa.gov/sites/production/files/2016-12/documents/2016_a_citizens_guide_to_radon.pdf
Training and Certification Requirements
Our DNE course curriculum covers radon, what it is and how it occurs, including what factors may make radon worse, and precautionary measures that may be helpful. 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 Requirements
The client education checklist (which includes radon education) must be 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: • If hard-wired smoke detectors exist, the alteration or repair will require the removal of wall or ceiling finishes exposing the structure in some cases KHC requires all repair work to be paint ready. • 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 split-level 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 NFPA. Installed CO alarms must have the capability to accurately detect and digitally 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-burning heating systems are present. Fire extinguishers must be installed according to the manufacturer's recommendations, be type ABC, UL-listed, ≤ 10 lb. and with a permanently affixed wall bracket to receive the extinguisher.				
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,* https://www.kyhousing.org/programs/wap-resources. 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 ☐	Alternative Guidance ☑	Results in Deferral ☐

Funding

DOE ☑	LIHEAP ☑	State ☐	Utility ☑	Other ☑

What guidance do you provide Subgrantees for soliciting the occupants' health and safety concerns related to components of their homes?

Occupants will be asked to reveal known or suspected health concerns as part of initial application for weatherization. The occupants of the dwelling will be screened again prior to and during the audit. The client will be asked to disclose information of known risks. It will also require that worker contact information (in the form of agency weatherization office staff phone numbers) be given to the client so client can inform of any issues.

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?

The weatherizing agency must determine presence of at-risk occupants (i.e. elderly, persons with disabilities or other health concerns) before proceeding with evaluation services.

What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?

When a person's health may be at risk and/or the work activities could constitute a health of safety hazard, the occupant at risk will be required to take appropriate action based on severity of risk. Temporary relocation of at-risk occupants may be allowed. A written request must be submitted to KHC and approval must be granted before any further action is taken. Failure or the inability to take appropriate actions must result in deferral.

Client Education
The Health & Safety Client Application and Home Screening Questionnaire form must be reviewed and signed by the client at the time of application intake and reviewed by evaluator before the evaluation is started.
Documentation Form(s) have been developed and comply with guidance? Yes ☑ No ☐
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,* https://www.kyhousing.org/programs/wap-resources*.*

7.21 – Ventilation and Indoor Air Quality

Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐		
Funding				
DOE ☑	LIHEAP ☑	State ☐	Utility ☑	Other ☑
Identify the Most Recent Version of ASHRAE 62.2 2016 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 ASHRAE 62.2 2016 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 subgrantee and results are used to recommend additional training and focus training efforts.				

7.22 – Window and Door Replacement, Window Guards

Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐		
Funding				
DOE ☑	LIHEAP ☑	State ☐	Utility ☑	Other ☑

What guidance do you provide to Subgrantees regarding window and door replacement and window guards?
Replacement, repair, or installation of doors, windows or window guards is not an allowable H&S cost but may be allowed as an ECM if it is cost justified.
Testing Protocols
A visual inspection, in conjunction with diagnostic testing, (i.e. blower door) is performed to determine the condition of existing doors and windows.
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 and H&S concerns when encountering lead.

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

7.24 – <Add in Topic>			
Concurrence, Alternative, or Deferral			
Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐	

Version 1.0

Funding				
DOE ☑	LIHEAP ☐	State ☐	Utility ☐	Other ☐
Remediation Protocols				
KHC will allow the replacement of "inoperable" DWH or DWHs in which the cost of repairs is not effective.				
Testing Protocols				
Energy auditors/DNEs will evaluate the condition of DWH during the energy audit and add it as a H&S measure if the DWH is inoperable beyond repair or the costs or repairs are not reasonable when compared to the cost of the DWH replacement.				
Client Education				
Provide instructions and DWH manuals when necessary.				
Training				
KHC will add this to the DNE/EA training curriculum.				

7.24 – <Add in Topic>				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☐		Results in Deferral ☐
Funding				
DOE ☐	LIHEAP ☐	State ☐	Utility ☐	Other ☐
Remediation Protocols				
Testing Protocols				
Client Education				
Training				